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Remedial Design/Remedial Action Work Plan for Group 3, PM-2A Tanks and Burn Pits for Test Area North, Waste Area Group 1, Operable Unit 1-10

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Prepared for the
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12/6/03
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ABSTRACT

This Comprehensive Environmental Response, Compensation and Liability Act remedial design/remedial action work plan has been developed in accordance with the Idaho National Engineering and Environmental Laboratory Federal Facility Agreement and Consent Order to present the remedial design and the remedial action work plan for implementing the Waste Area Group 1, Operable Unit 1-10 Group 3 remedial actions at the Test Area North Technical Support Facility and Water Reactor Research Test Facility . The sites addressed include the Technical Support Facility-26 PM-2A Tanks and the Technical Support Facility-03 and Water Reactor Research Test Facility-01 Burn Pits. The remedial design/remedial action work plan and its supporting documents provide details of each remediation site and its associated contaminants, design and regulatory requirements, remediation tasks, project organization, schedules, and cost estimates. The remedial design/remedial action work plan document includes eleven appendices:

Appendix A – Applicable or Relevant and Appropriate Requirements

Appendix B – Air Modeling Report

Appendix C – Project Calculations and Analyses

Appendix D – Cost Estimates

Appendix E – Safety Category Evaluation

Appendix F – Technical and Functional Requirements, TFR-234

Appendix G – Agency Comment Resolution Forms

Appendix H – Sequencing Sketches

Attachment 1 – PM-2A Tanks -- Specifications

Attachment 2 – TSF-03 -- Specifications

Attachment 3 – WRRTF-01 -- Specifications

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FIGURES

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ACRONYMS

ALARA	as low as reasonably achievable
ARARs	applicable or relevant and appropriate requirements
BBWI	Bechtel BWXT Idaho, LLC
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
D&D	decontamination and decommissioning
DE	diatomaceous earth
DOE	U.S. Department of Energy
DOE-ID	Department of Energy-Idaho Operations Office
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
FFA/CO	Federal Facility Agreement and Consent Order
FRG	final remediation goal
FSP	field sampling plan
HASP	health and safety plan
HEPA	high efficiency particulate air
HWMA	Hazardous Waste Materials Act
IC	institutional controls
ICDF	INEEL CERCLA Disposal Facility
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
IET	Initial Engine Test
INEEL	Idaho National Engineering and Environmental Laboratory
LDR	land disposal restriction

LLW	low-level waste
LOFT	Loss-of-Fluid Test
MLLW	mixed low-level waste
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
O&M	operations and maintenance
OU	operable unit
P&T	packaging and transportation
PCB	polychlorinated biphenyl
PM	project manager
RA	remedial action
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RD	remedial design
RD/RA	remedial design/remedial action
RFP	request for proposal
RI/FS	remedial investigation/feasibility study
ROD	Record of Decision
RWMC	Radioactive Waste Management Complex
SMC	Specific Manufacturing Capability
SSSTF	Staging, Storage, Sizing and Treatment Facility
SOW	scope of work
TAN	Test Area North
TFR	technical and functional requirements
TSF	Technical Support Facility
WAC	waste acceptance criteria
WAG	waste area group

WGS	Waste Generator Services
WMP	Waste Management Plan
WRRTF	Water Reactor Research Test Facility

Remedial Design/Remedial Action Work Plan for Group 3, PM-2A Tanks and Burn Pits for Test Area North, Waste Area Group 1, Operable Unit 1-10

1. INTRODUCTION

This remedial design/remedial action (RD/RA) work plan has been prepared in accordance with the Idaho National Engineering and Environmental Laboratory (INEEL) Federal Facility Agreement and Consent Order (FFA/CO) (U.S. Department of Energy Idaho Operations Office [DOE-ID] 1991) by the DOE-ID. This plan addresses the implementation of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.) remedies for the Technical Support Facility (TSF) sites at the Test Area North (TAN) and Water Reactor Research Test Facility (WRRTF): TSF-26 PM-2A Tanks, TSF-03 Burn Pit, and WRRTF-01 Burn Pits. These CERCLA remedial actions (RAs) will proceed in accordance with the signed Record of Decision (ROD) for Operable Unit (OU) 1-10 (DOE-ID 1999) and the Explanation of Significant Differences (ESD) for the ROD (DOE-ID 2003a).

As part of CERCLA, the release sites at TAN OU 1-10 were evaluated through a comprehensive remedial investigation/feasibility study (RI/FS) (DOE-ID 1997). The RI/FS assessed the investigations previously conducted for Waste Area Group (WAG) 1, thoroughly investigated the sites not previously evaluated, and determined the overall risk posed by the WAG. The OU 1-10 RI/FS culminated with the finalization of the OU 1-10 ROD (DOE-ID 1999). The ROD identified eight sites requiring remedial action and the remedies for each. To facilitate remediation, and as agreed to by the U.S. Environmental Protection Agency (EPA) Region 10, the Idaho Department of Environmental Quality (IDEQ), and DOE-ID, hereafter referred to as the Agencies, the eight sites requiring remediation in WAG 1 are divided into three groups. The sites included in each group are presented in Table 1-1.

The TSF-26 site was subdivided for remediation purposes. Site TSF-26 surface soils, included in Group 1, are assumed to extend to 10 ft below the original ground surface (bgs) above the PM-2A Tanks. The remaining soil above the tanks, the tanks themselves, the cradles and any ancillary piping are considered to be the PM-2A Tanks site within Group 3. The Group 3 sites are addressed in this RD/RA work plan.

Table 1-1. Waste Area Group 1, OU 1-10 sites requiring RA or limited action in the original ROD.

Group	Sites
Group 1	TSF-06, Area B, Soil Contamination Area South of the Turntable, TSF-07 Disposal Pond, WRRTF-13 Fuel Leak Site, and TSF-26 PM-2A Tanks Surface Soil Contamination
Group 2	TSF-09 and TSF-18 V-Tanks
Group 3	PM-2A Tanks, TSF-03 Burn Pit, and WRRTF-01 Burn Pits

1.1 Work Plan Organization

This document presents the remedial design and remedial action work plan for implementing the OU 1-10 Group 3 site remediation. The RD/RA work plan and its supporting documents provide details of each remediation site and its associated contaminants, design and regulatory requirements, remediation tasks, project organization, schedules, and cost estimates. Brief descriptions of the sections of this plan and the appendices are provided as follows:

- Section 1, Introduction, describes the historical background and regulatory history of WAG 1 and remediation sites PM-2A Tanks, TSF-03, and WRRTF-01 addressed by this work plan.
- Section 2, Design Basis and Requirements, presents the bases for the RA designs, including the remedial action objectives (RAO) identified in the ROD, the performance objectives established by the project, and all applicable regulatory requirements.
- Section 3, Uncertainty Management, discusses the uncertainties and potential risks related to the remedial designs (RDs) and/or the RAs and identifies measures to resolve or mitigate the risks.
- Section 4, Remedial Design, presents the design for each remediation site, including assumptions and site requirements.
- Section 5, Environment, Safety, Health, and Quality, discusses how environmental, health and safety, and quality requirements will be met through compliance with various project documents and processes.
- Section 6, Remedial Action Work Plan, describes the controls and protocols developed for the Group 3 RAs, identifies the remediation tasks, and discusses the interfaces for each remediation task. Inspection requirements and documents supporting this work plan are identified and discussed.
- Section 7, Changes to the Remedial Design/Remediation Action Scope of Work, identifies changes to the ROD-selected remedies, as documented in the ESD.
- Section 8, Five-Year Review, discusses the requirements for 5-year reviews of the remedies to ensure protectiveness of the remedies.
- Section 9, References, lists the references used to prepare this work plan.
- Appendix A, Applicable or Relevant and Appropriate Requirements, provides tables of applicable or relevant and appropriate requirements (ARARs) for each site.
- Appendix B, Air Modeling Report, provides the results of the radiological and chemical modeling performed for the RAs.
- Appendix C, Project Calculations and Analyses.
- Appendix D, Cost Estimates.
- Appendix E, Safety Category Evaluation.

- Appendix F, Technical and Functional Requirements.
- Appendix G, Agency Comment Resolution Forms.
- Appendix H, Sequencing Sketches, provides the general sequences for the remediation activities for each site.
- Attachment 1, PM-2A Tanks -- Specifications, provides the design drawings and specifications to detail and support the design for this site.
- Attachment 2, TSF-03 -- Specifications, provides the design drawings and specifications to detail and support the design for this site.
- Attachment 3, WRRTF-01 Burn Pits II and IV -- Specifications, provides the design drawings and specifications to detail and support the design for this site.

1.2 Background

The INEEL is a U.S. Department of Energy (DOE) facility located in southeastern Idaho, 51.5 km (32 mi) west of Idaho Falls, and encompasses approximately 2,305 km^2 (890 mi^2) of the northeastern portion of the Eastern Snake River Plain (Figure 1-1). The TAN Facility is approximately a 41-ha (102-acre) area, located in the north-central portion of the INEEL (Figure 1-1). The area includes four different facilities: (1) TSF, (2) the Initial Engine Test (IET) Facility, (3) WRRTF, and (4) the Specific Manufacturing Capability (SMC)/Loss-of-Fluid Test (LOFT) Facility. Since its construction in 1954, TAN has supported numerous research and testing projects, including development and testing of designs for nuclear-powered aircraft engines, reactor safety testing and behavior studies, armor manufacturing, nuclear inspections, and storage operations.

The PM-2A Tanks site consists of two abandoned 189,270-L (50,000-gal) underground carbon steel storage tanks, their concrete containment troughs, associated piping, the waste content of the tanks, and the contaminated soils around them (Figure 1-2). The tanks were installed in the mid-1950s to store low-level radioactive waste from the TAN/TSF Intermediate Level Radioactive Waste Management System Evaporator (TAN-616 Evaporator) and then the PM-2A Temporary Evaporator until 1975. The PM-2A Evaporator was decontaminated and decommissioned in the early 1980's. Figure 1-3 shows the expected tank configuration as a result of the decontamination and decommissioning (D&D) activities. The tanks currently contain F001-listed, mixed low level waste (MLLW) contaminated with radionuclides, heavy metals, organic compounds, and polychlorinated biphenyls (PCBs). Diatomaceous earth (DE) was added to the tanks during the D&D activities to absorb free liquid. However, a recent video of the tank interiors by Bechtel BWXT Idaho, LLC (BBWI) shows some liquid in the west tank (see Figure 1-3). The soil above and in the general area of the tanks was contaminated from occasional spills during routine operations, and from leaks and spills during the removal and treatment of the liquid waste. Approximately 6 ft of surface soil above the PM-2A Tanks has been removed during previous TSF-26 Group 1 activities, leaving approximately 4 ft of Group 1 soils above the tanks to be handled under the Group 3 remediation. Soil sampling conducted by BBWI in spring 2003 indicates that some Cs-137 contamination >23.3 pCi/g exists in the soil above the PM-2A Tanks.

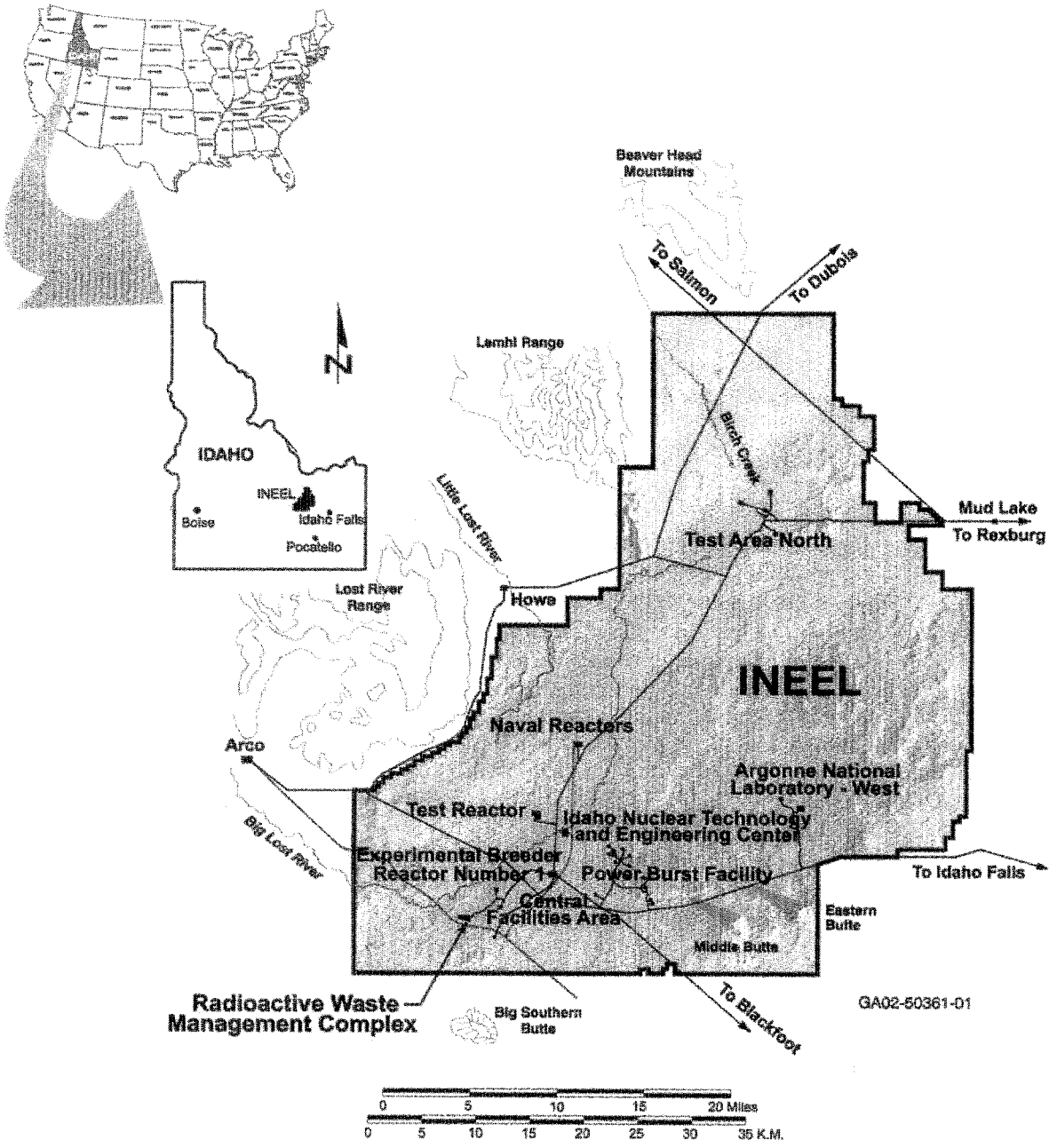


Figure 1-1. Location of the Idaho National Engineering and Environmental Laboratory.

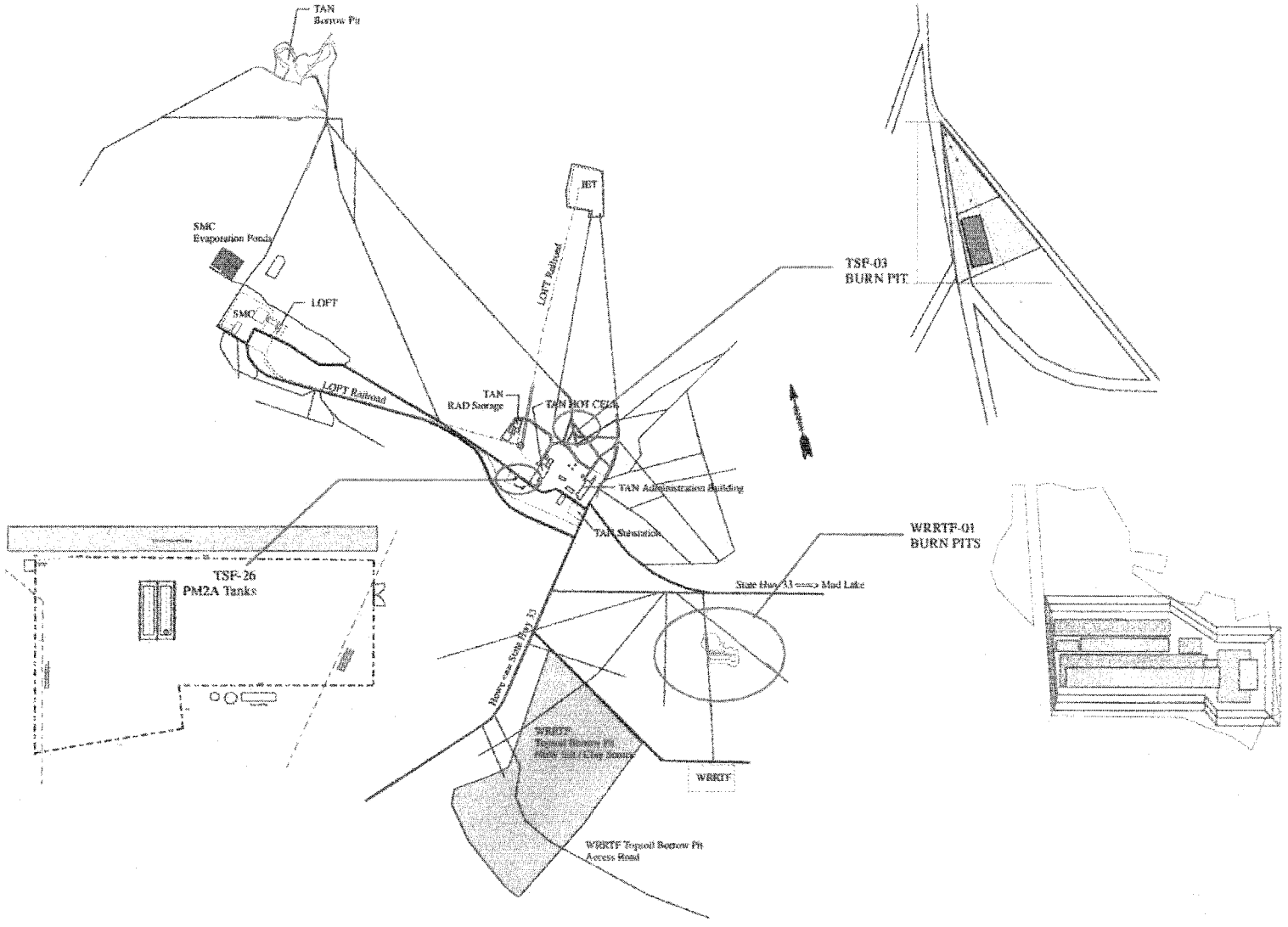
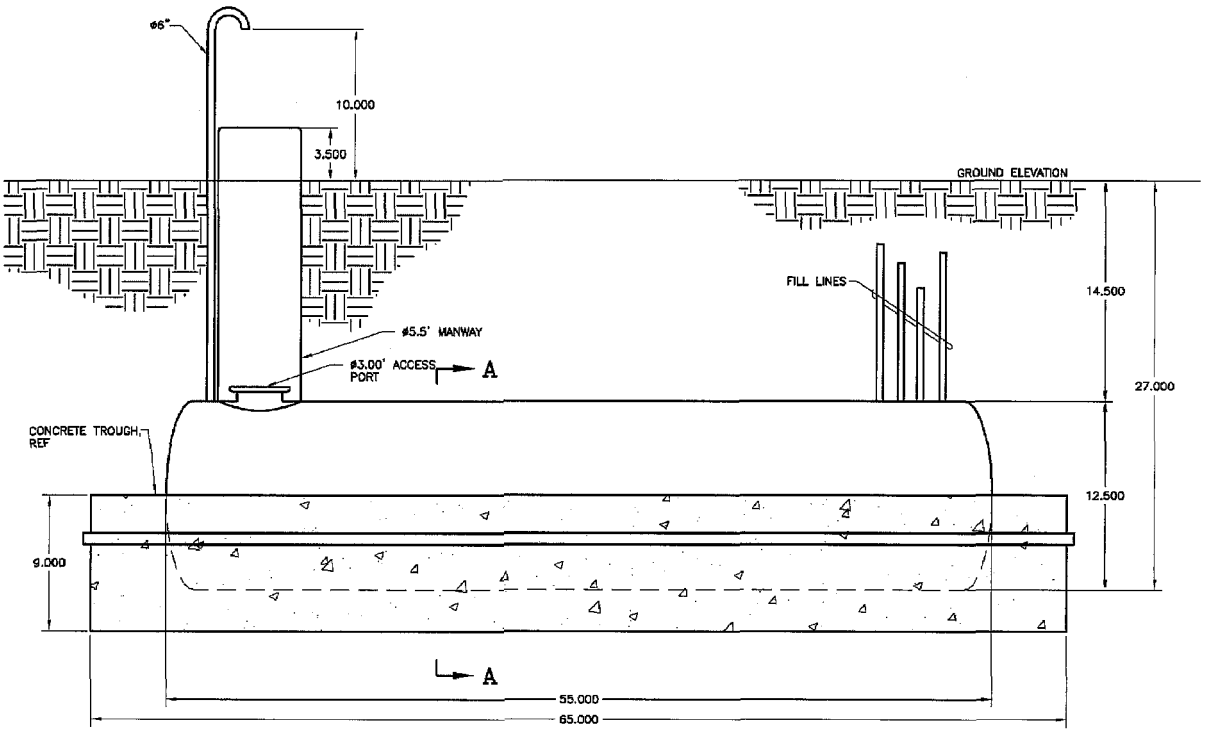
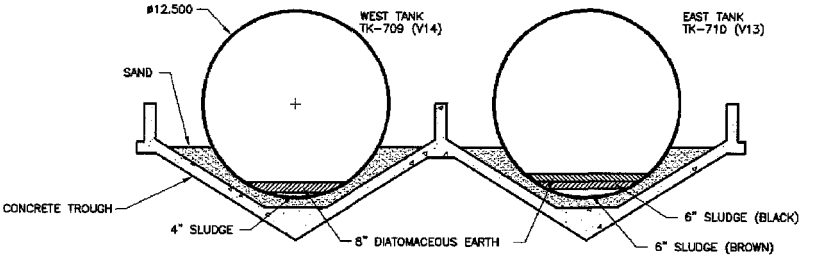


Figure 1-2. OU 1-10 Group 3 remedial action sites.



a. Elevation: Looking West at Tank 710



Note: The sludge layers were measured before the diatomaceous earth was deposited.

b. Section A–A: Looking North

Figure 1-3. PM-2A Tanks configuration.

Site TSF-03, shown in Figure 1-2, consists of a pit used for open burning of construction debris and wastes generated from various areas at TAN. During the 1950s, the pit received refuse, construction debris, and combustible liquids that were incinerated each time materials were disposed of in the pit. Although no records were kept of the types or volumes of waste disposed in the pit, process knowledge, limited historical information, and sampling activities indicate that Stoddard solvent, oily waste, glass, metallic objects, fiberglass, and charcoal may have been placed within the pit. Use of the pit was discontinued in 1958 and it was eventually backfilled with clean soil and revegetated. Subsidence control has been maintained.

The WRRTF-01 site consists of four burn pits also used for open burning of combustible waste generated at various TAN Facilities from 1958 to 1975 (Figure 1-2). Burn Pit I received combustible solids and liquids; Burn Pit II received only combustible solids; Burn Pit III received only combustible liquids consisting mainly of oil from glass windows at the TAN Hot Shop and isopropyl alcohol used to clean the oil off the windows; and Burn Pit IV received primarily combustible solids and some noncombustible solids (automobiles, metal goods, etc.). Following their closure, the pits were backfilled with clean soil and the areas revegetated. Post-ROD sampling of the burn pits conducted in 2000/2001 (DOE-ID 2003b) indicated the presence of asbestos in Burn Pits II and IV.

1.3 Remedial Action Overview

The TAN WAG 1 is one of 10 INEEL WAGs identified in the FFA/CO by the Agencies. Operable Unit 1-10 is listed as the WAG 1 comprehensive RI/FS in the FFA/CO (DOE-ID 1991). The purpose of the RI/FS was to assess the investigations previously conducted for WAG 1, thoroughly investigate the sites not previously evaluated, and determine the overall risk posed by the WAG. The final ROD for the OU 1-10 sites identifies the remedies selected for eight of these sites that might present an imminent and substantial endangerment to human health and the environment. These eight sites were initially investigated in other OUs in WAG 1 and were later incorporated into OU 1-10 for the RI/FS and ROD.

The ROD-selected remedy for the PM-2A Tanks is soil excavation, tank content vacuum removal, treatment and disposal of tank contents, tank decontamination, confirmation sampling, and excavation backfill and contouring. During development of this RD/RA work plan, minor deviations to the ROD-selected remedy were identified. More specifically, rather than decontaminating the tanks and leaving them in place, the tanks will be removed and disposed of at the INEEL CERCLA Disposal Facility (ICDF). While this approach represents a deviation from the OU 1-10 ROD, it is consistent with the intent of the ROD and leaves the PM-2A Tanks site in a state that is more protective of human health and the environment and consistent with the Resource Conservation and Recovery Act (RCRA) Closure Plan (DOE-ID 2003d). This deviation is documented in Section 7.0 of this plan.

Because of the similarities between the two sites, TSF-03 and WRRTF-01 were evaluated together in the ROD and the remedy selected for both sites was installation of a native soil cover, with excavation and disposal as the contingent remedy. During 2000 and 2001, these sites were resampled, in accordance with a second site characterization effort stipulated in the OU 1-10 ROD, to identify and assess additional contaminants of potential concern that may be present in the soils at each site.

The results of this resampling effort indicate that lead levels in the TSF-03 Burn Pit exceed the EPA Region IX screening level of 400 mg/kg. Therefore, excavation and disposal is preferred over a native soil cover to ensure that no contaminants are left in place above risk-based levels and to alleviate the need for long-term maintenance or institutional controls (ICs). For WRRTF-01, the resampling results indicated that the risk-based contaminant concentrations do not exceed $1x10^{-4}$ cumulative risk or a Hazard Index of 1. However, the resampling data showed that asbestos was present in Burn Pits II and IV above action levels. Asbestos is not typically evaluated as part of the ecological risk assessment. Relevant asbestos regulations specify that a 2-ft soil cover be installed and maintained over these two pits to prevent intrusion into these asbestos contaminated areas. The evaluations and decisions regarding the RAs for TSF-03 and WRRTF-01 are documented in the ESD to the ROD (DOE-ID 2003a).

2. DESIGN BASIS AND REQUIREMENTS

This design basis identifies the regulatory, operational and performance requirements necessary to prepare the PM-2A Tanks, TSF-03, and WRRTF-01 designs. The requirements are established to bracket the key parameters necessary for the RAs to achieve the RAOs developed for these sites.

2.1 Remedial Action Objectives

The RAOs for OU 1-10, as identified in the ROD, include those developed for the soil and those developed for the PM-2A Tanks contents. The applicable RAOs for the soil are:

- Reduce risk from external radiation exposure from Cs-137 to a total excess cancer risk of less than 1 in 10,000 for the hypothetical resident 100 years in the future and the current and future worker.
- Prevent direct exposure to lead at concentrations over 400 mg/kg, the EPA residential screening level for lead.
- The RAO for the PM-2A Tanks contents is:
- Prevent release to the environment of the PM-2A Tanks contents.

To meet these RAOs, final remediation goals (FRGs) were established and documented in the ROD to ensure a risk-based protectiveness of human health and the environment by providing unrestricted land use in 100 years. These goals, which are both contaminant- and site-specific, are quantitative cleanup levels based primarily on ARARs and risk-based doses. The soil FRGs, as identified in Table 6-1 of the ROD, are:

- 23.3 pCi/g Cs-137 for TSF-26
- 400 mg/kg lead for TSF-03.

When the ROD was signed in 1999, the only contaminant of concern (COC) for the WRRTF-01 site was lead. An evaluation of post-ROD characterization data, however, confirmed that the arithmetic mean and the exposure point concentrations for lead were well below the EPA Region IX lead screening level of 400 mg/kg, indicating that lead is not the appropriate driver for the WRRTF-01 burn pits remediation. Additionally, the post-ROD characterization measured asbestos levels in Pits II and IV at >1% by volume, which is above action levels and is a regulatory and health and safety concern. Based on this additional data, the remediation driver for WRRTF-01 Burn Pits II and IV was changed from lead to asbestos. A decision was made by DOE and the Agencies to place a native soil cover over these soils to prevent future exposure to asbestos. The ARARs identified in the ROD remain in effect (DOE-ID 1999). In addition, 40 CFR 61.151(a) requiring a soil cover and 40 CFR 61.151(e) requiring institutional controls, have been added for WRRTF Burn Pits II and IV due to the confirmed presence of asbestos. The ESD to the ROD reflects the change in the contaminant of concern from lead to asbestos while maintaining the remedy of a native soil cover for Pits II and IV.

The specific remediation activities that will enable the project to meet these objectives are identified in Section 6.2.

2.2 Project Requirements

The following sections summarize the overall project requirements that are applicable to each of the Group 3 remediation sites. In addition to the requirements specified in this section, a separate technical and functional requirements (TFR) document was prepared for the PM-2A Tanks remedial activities. This document is provided as Appendix F.

2.2.1 Regulatory Requirements

Under CERCLA Section 121 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the Agencies must select remedies that are protective of human health and the environment, that comply with all ARARs, that are cost effective, and that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In addition, CERCLA includes a preference for remedies that employ, as a principal element, treatment that permanently and significantly reduces the toxicity, mobility, or volume of hazardous wastes, and has a bias against off-site disposal of untreated wastes. Implementation of the ROD-selected remedies for the PM-2A Tanks, TSF-03 and WRRTF-01 will comply with all ARARs for these sites. Appendix A, Tables A-1 and A-2, summarize the ARARs for the PM-2A Tanks site and Sites TSF-03 and WRRTF-01, respectively, and include strategies for ensuring that the ARARs are met.

2.2.2 Department of Energy Orders and Standards

The following DOE orders and standards apply to the design and implementation of the RAs:

- DOE Order 231.1, "Environment, Safety, and Health Reporting"
- DOE Order 414.1A, "Quality Assurance"
- DOE Order 435.1, "Radioactive Waste"
- DOE Order 470.1, "Safeguards and Security Program"
- DOE Order 5400.5, "Radiation Protection of the Public and Environment"
- DOE Order 5480.4, "Environmental Protection, Safety, and Health Protection Standards."

2.2.3 INEEL Requirements

The following documents provide key INEEL project-specific requirements that apply to the design and implementation of the RAs:

- Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory, Administrative Record No. 1088-06-29-120 (DOE-ID 1991).
- Remedial Design and Remedial Action Guidance for the Idaho National Engineering Laboratory, DOE/ID-12584-152, Rev. 2, 1993.
- Final Record of Decision for Test Area North, Operable Unit 1-10, DOE/ID-10682, Rev. 0 (DOE-ID 1999).

- Quality Assurance Project Plan for Waste Area Groups 1, 2, 3, 4, 5, 6, 7, 10, and Inactive Sites, DOE/ID-10587, Rev. 7 (DOE-ID 2002a).

- Field Sampling for Group 3, PM-2A Tanks for Test Area North, Waste Area Group 1, Operable Unit 1-10,DOE/ ID-11078, Rev 0, (DOE-ID 2003c).

- Hazardous Waste Management Act/Resource Conservation and Recovery Act Closure Plan for the Test Area North/Technical Support Facility Intermediate-Level Radioactive Waste Management System, Phase III: Intermediate Level Radioactive Waste Holding Tank Subsystem (PM-2A Tanks), DOE/ID-11076 (DOE-ID, 2003d).

- Field Sampling Plan for Group 3, TSF-03 Burn Pits for Test Area North, Waste Area Group 1, Operable Unit 1-10, DOE/ID-11094, Rev. 0, (DOE-ID, 2003e).

- "Explanation of Significant Differences for the Record of Decision for Test Area North Operable Unit 1-10 (Draft)," DOE/ID-11050 Rev. 0 (DOE-ID 2003a).

- Idaho National Engineering Laboratory Waste Acceptance Criteria, DOE/ID-01-10381, Rev. 16, May 2003.

- ICDF Complex Waste Acceptance Criteria, DOE/ID-10881, Rev. 0, March 2002.

- Waste Acceptance Criteria for ICDF Landfill, DOE/ID-10865, Rev. 2, May 2002.

- Waste Acceptance Criteria for ICDF Evaporation Pond, DOE/ID-10866, May 2002.

- Institutional Control Plan for the Test Area North Waste Area Group 1, INEEL/EXT-2000-00917 (INEEL 2000).

- Waste Management Plan for Group 3, PM-2A Tanks and Burn Pits, for Test Area North, Waste Area Group 1, Operable Unit 1-10 INEEL/EXT-03-00284 (INEEL 2003a)

- Health and Safety Plan for the Group 3 Remedial Design/Remedial Action Sampling, Excavation, Backfilling, Packaging, and Shipment of Soil at Waste Area Group 1, Operable Unit 1-10, INEEL/EXT-03-00046 (INEEL 2003b).

- Decontamination Plan for Group 3, PM-2A Tanks and TSF-03 Burn Pit for Test Area North, Waste Area INEEL/EXT-03-00283 (INEEL 2003c).

- MCP-62, "Waste Generator Services – Low-Level Waste Management."

- MCP-63, "Waste Generator Services – Conditional Industrial Waste Management."

- MCP-69, "Waste Generator Services - Hazardous Waste Management."

- MCP-70, "Waste Generator Services – Mixed Low-Level Waste Management."

- MCP-241, "Preparation of Characterization Plans."

- MCP-255, "Hazardous Waste Operations and Emergency Response Activity Health and Safety Plans."
- MCP-2748, "Hazardous Waste Operations and Emergency Response."
- MCP-2749, "Confined Space."
- MCP-2811, "Design Control."
- MCP-3562, "Hazard Identification, Analysis, and Control of Operational Activities."
- MCP-7, "Radiological Work Permits."
- MCP-91, "ALARA Program and Implementation."
- MCP-3475, "Temporary Storage of CERCLA-Generated Waste at the INEEL."
- MCP-3480, "Environmental Instructions for Facilities, Processes, Materials, and Equipment."
- PDD-1004, "INEEL Integrated Safety and Management System."
- PRD-1007, "Work Coordination and Hazard Control."
- PRD-183, 2000, INEEL Radiological Control Manual 15 A, Rev.6, Idaho National Engineering and Environmental Laboratory, July 2000.
- PRD-5006, "Subcontractor/Supplier Quality Plan."
- STD-101, "Integrated Work Control Process."

3. UNCERTAINTY MANAGEMENT

During the remedial design, uncertainties and project risks have been identified with respect to various aspects of the activities.To the extent possible, these uncertainties and project risks have been reduced or mitigated through the development of the design. Table 3-1 lists the uncertainties and project risks identified for these activities and specifies the actions designed to manage the project risk prior to or during remediation.

Table 3-1. Identification and mitigation of remedial action uncertainties.

	Uncertainty	Risk	Mitigation Action
PM-2A Tanks	Radiation levels in the soil around the tanks might be higher than expected and require a significant quantity of soil to be removed and disposed.	The designed storage capacity and transportation capabilities are exceeded for the project.	Only soil above the soil FRG of 23.3 pCi/g for Cs-137 is targeted for removal. Separate activities will be performed prior to the start of these activities to remove all identified soils above the FRG.
	Radiation fields in the working area(s) near the tanks might be higher than expected.	Work controls established for project activities are not protective of the workers.	Radiation fields are estimated prior to starting field work to establish work controls. Real-time analyses will be conducted during remediation activities and work controls adjusted as necessary.
	Tank contents may require treatment prior to disposal at ICDF.	The current waste management approach (e.g., quantities, packaging, transportation and disposal) is inadequate.	Sampling and analysis of the tank contents indicates treatment may be required for V-14. Additional sampling is planned after removal. If the analyses indicate that treatment is required, this RD/RA work plan will be revised accordingly. A pre-conceptual design for a treatment system is underway with preliminary indication that treatment can occur in the container planned for collecting this waste.
	The contaminant concentrations in the soil below the tanks and around the concrete cradles might not meet CERCLA FRGs.	Additional soil and possibly the concrete cradles would have to be removed, packaged and dispositioned.	Samples collected from within the cradles in 2003 are currently being analyzed and will provide information to make decisions regarding the extent of excavation required and other potential remediation activities under CERCLA.
	Tank contents may be hard-packed and resist break-up with the BROKK implement.	The contents of the tanks might not be removable as the vacuum system is currently designed.	Recent video of the inside of the tanks indicates the contents are relatively moist. Should the contents prove to be solid in areas, however, various end-effectors can be attached to the BROKK to reduce the tank contents to a size that can pass through the vacuum system.

Table 3-1. (continued).

	Uncertainty	Risk	Mitigation Action
	Tank contents may be excessively moist.	The moist waste cakes out on the equipment and plugs up the system.	The vacuum system is designed to handle moist or dry material. Diatomaceous earth addition is planned prior to contents removal to absorb excess moisture.
TSF-03	Excavation area may be significantly larger than designed for.	The designed storage capacity and transportation capabilities are exceeded for the project.	Sampling has been performed to better define the pit boundaries. These results were used to design the excavation strategy.
	Excavated material may require treatment prior to disposal.	The current waste management approach (e.g., quantities, packaging, transportation and disposal) is inadequate.	Sampling has been performed to better define the waste characteristics and possible treatment requirements.

4. REMEDIAL DESIGN

This section describes the key Group 3 design aspects of the RAs for the PM-2A Tanks, TSF-03, and WRRTF-01 Pits II & IV. The design packages containing the applicable drawings and specifications are presented in separate appendices to this document.

4.1 Design Requirements

The applicable design inputs and performance requirements are based on the regulatory requirements, codes, and standards identified and documented in the OU 1-10 ROD. These requirements are listed as ARARs for each of the given remedial activities. Appendix A provides ARAR applicability tables for the RAs. These tables identify the ARARs listed in the ROD and present a brief description of how each of the ARARs will be implemented during the remediation activities.

The following list is a summary of the general design requirements, based on ARARs, which are applicable for all the activities associated with the entire Group 3 RAs:

- Mitigate the release of contaminants during soil excavation, tank content removal, tank removal, and waste packaging and disposal activities.
- Air emissions must not exceed limits set using appropriate air modeling techniques. An air modeling report is provided in Appendix B that summarizes the radionuclide air modeling performed using CAP88 Software and chemical air modeling performed using SCREEN3 Software.
- All hazardous waste streams generated during remediation activities that will be stored and/or disposed of must have a hazardous waste determination developed.
- All wastes generated will be processed and handled using the Waste Generator Services (WGS) organization.
- All hazardous and mixed low level wastes will be processed, packaged, and transported, through WGS and Packaging and Transportation (P&T), in accordance with the ICDF waste acceptance criteria (WAC). Other wastes will be disposed of through WGS in accordance with INEEL WAC and may be disposed of at the INEEL landfill at the Central Facilities Area or at the Radioactive Waste Management Complex (RWMC).
- All waste generated during remediation operations will be managed in accordance with the project-specific waste management plan (WMP) (INEEL 2003a).
- Work activities and site access restrictions will be controlled by INEEL work control processes and will be performed in accordance with this RD/RA work plan.
- All personnel involved in soil excavation, tank content removal, and tank removal will be trained in accordance with the requirements listed in the project-specific health and safety plan (HASP) (INEEL 2003b).
- Contingency plans and emergency equipment will be identified, tested, and maintained as described in the HASP.

- Equipment decontamination will be conducted in accordance with the project decontamination plan (INEEL 2003c).

- Remediation wastes will be kept in compatible containers meeting the requirements of 40 Code of Federal Regulations (CFR) 264.

- Existing ICs will continue following completion of the RAs as specified in the OU 1-10 IC plan (INEEL 2000).

- Operational and decontamination sampling will be performed in accordance with the project FSPs (DOE-ID 2003c and 2003e).

4.1.1 PM-2A Tanks Requirements

In addition to the general design requirements, a separate TFR document was developed for the PM-2A Tanks site remediation and is provided as Appendix F. The following list summarizes the requirements specific to the PM-2A Tanks RA:

- The soil in the excavated area will be sampled to confirm that there is no residual Cs-137 contamination above the FRG of 23.3 pCi/g.

- Any excavated soil determined to be contaminated with Cs-137 greater than 23.3 pCi/g will be removed and disposed of at the ICDF.

- The tank contents (sludge and DE) will be mixed together prior to being removed from the tanks.

- A waste profile will be developed using September 2003 analytical results from tank content sampling to determine compatibility with the ICDF WAC and LDRs for waste disposal options.

- The tank contents will be removed, packaged and disposed of at ICDF.

- The tanks and associated piping will be removed and disposed of in the ICDF to meet the RCRA closure criteria established for this site (DOE-ID 2003d).

- The soil/sand within the tank cradles will be sampled to verify that there is no residual contamination above the FRG of 23.3 pCi/g Cs-137.

- Radionuclide emissions will not exceed amounts that would cause any member of the public to receive, in any year, an effective dose equivalent of greater than 10 mrem/year.

- Other piping (non-RCRA) encountered during excavation will be disposed of at the ICDF as debris.

- All excavation areas will be backfilled and compacted to match the surrounding topography, graded for drainage, and reseeded using native grasses.

4.1.2 Site TSF-03 Requirements

In addition to the general design requirements, the following actions are requirements specific to the RA for TSF-03:

- The pit contents will be excavated, packaged, and disposed of in ICDF.

- The soil in the excavated area will be sampled to verify that there is no residual lead contamination above the EPA Region IX screening level for lead of 400 mg/kg and that the cumulative risk from residual contamination does not exceed the acceptable cumulative risk range of 10^{-4} for unrestricted use of the site following completion of the RA.

- The pit will be backfilled with clean soil and contoured to natural grade.

- The area will be reseeded using native grasses.

4.1.3 WRRTF-01 Requirements

In addition to the previously listed requirements, the following actions are requirements specific to the RA for WRRTF-01. These actions comply with requirements of the Idaho Solid Waste Landfill regulations (Idaho Administrative Procedures Act [IDAPA] 58.01.06.006) and National Emissions Standard for Hazardous Air Pollutants (NESHAPS) (40 CFR 61, Subpart M):

- Native soil covers will be placed over Pits II and IV. Existing low areas will be filled and compacted. The covers will then be compacted to provide, at a minimum, a 2 ft. thick cover over all waste material.

- The surfaces will be contoured to provide natural drainage away from the pits.

- The pit areas will be reseeded using native grasses.

- Granite monuments will be placed at the corners of the soil covers.

- The pits will be closed and maintained in accordance with the Idaho solid waste landfill regulations and the NESHAPS regulations.

4.2 Design Assumptions

Based on the work scope, available data and project documents, several assumptions are made regarding the design of the remedies for the PM-2A Tanks, TSF-03, and WRRTF-01. The design will proceed based on these assumptions until additional information or sampling data is made available to better define the assumptions.

4.2.1 PM-2A Tanks

The design assumptions for the PM-2A Tanks are as follows:

- The soil in the PM-2A Tanks area at 4 ft or more bgs may be used for excavation backfill if contaminant concentrations are <23.3 pCi/g for Cs-137.

- The waste piping associated with the tank system does not contain residual waste and/or has not leaked prior to this remedial action. Therefore, no piping decontamination is required.

- The tanks have not leaked prior to this remedial action; therefore, the sand and cradles beneath the tanks are not contaminated and require no remediation.

- The residual material in the tanks is classified as only F001-listed MLLW.
- The ICDF WAC will be revised to allow acceptance of the tank halves for disposal.
- The empty tanks require no decontamination as they meet applicable land disposal restrictions (LDRs) and can therefore be disposed of in ICDF without requiring additional waste treatment.
- The tank contents have contaminant concentrations that meet the LDRs and can therefore be disposed in ICDF without requiring additional waste treatment.
- The current combined volume of tank waste is 7,700 gal (INEEL 2003d).
- The radiation fields generated by the tank contents will be low enough to allow personnel access in the tank vicinity, but high enough to limit access within the tanks.
- Site power can be obtained from pole-mounted transformers located near the tank excavation area towards the northwest corner of the PM-2A fencing.
- The TAN gravel pit (located near the northwest part of SMC) has adequate materials for backfill operations and gravel roadway improvements.

4.2.2 TSF-03 Burn Pit

The assumptions for the TSF-03 Burn Pit are:

- There are no underground utilities in the area near TSF-03.
- There is no site electrical power available for use in the TSF-03 area.
- The TAN gravel pit (located near the northwest part of SMC) has adequate materials for backfill operations and gravel roadway improvements.

4.2.3 WRRTF-01 Burn Pits II and IV

The assumptions for the WRRTF-01 Burn Pits II and IV are:

- There will be no radiological contamination encountered during the cover installation at WRRTF-01.
- The selected native soil cover remedy only applies to WRRTF-01 Pits II and IV. No action is required for either Pit I or III.
- The 2-ft minimum soil cover thickness is related to the height above buried debris, and does not mean that the pit elevation needs to be brought up to grade and then an additional 2 ft added for the cover.
- The waste in the pits will not be intruded during installation of the covers.

4.3 Major Equipment and Components

Tables 4-1 through 4-4 provide an overall list of the major equipment and components recommended for completion of the OU 1-10 Group 3 RAs. This list represents the anticipated equipment that may be used, and will be revised on a case-by-case basis as necessary. Where possible, equipment from one site area may be used at another site area.

4.3.1 PM-2A Tanks

This section and Tables 4-1 and 4-2 provide summary descriptions of the recommended major components and equipment that will be used for the remediation activities at the PM-2A Tanks site.

4.3.1.1 BROKK. The BROKK Tracked Demolition Vehicle will be used to provide direct access of the waste removal tools and systems into the bottom of the PM-2A Tanks. Various end-effectors will be used to complete the RAs. The primary waste removal system will utilize a vacuum wand with a chisel-type end-effector, moil-point end-effector or smooth bucket type end-effector.

4.3.1.2 Vacuum System. An engine operated vacuum system with high-efficiency particulate air (HEPA) filtration will be used for bulk removal of the tank contents. This system consists of a vacuum wand and hose connected to a knockdown hopper mounted directly above the waste material storage containers. Air is brought through the knockdown hopper and a HEPA filter bank using an engine-powered commercial vacuum.

4.3.1.3 Crane and Earthwork Equipment. This section lists the recommended equipment to be used to excavate the area around the tanks, move the soil to the staging area, and backfill/contour the excavation area:

- Backhoe – CASE 590T
- Excavator – CASE 9060B
- Crane – GROVE GMK5240 (240 ton Hydraulic Truck Mounted Crane) (to be used at PM-2A Tanks site)
- Crane – Grove TM9120 (120 ton Hydraulic Truck Mounted Crane) (to be used at the ICDF Site)
- Compactor – CAT 815B
- Loader – John Deere 744E/CASE 590
- Waste Containers – 20-30 yd^3 roll-off with Burrito Bags.

4.3.1.4 Support Equipment. Table 4-2 lists the additional recommended support equipment needed to complete the remediation activities for the PM-2A Tanks site.

4.3.2 TSF-03

The equipment recommended to be used in the remediation of TSF-03 is identified in the following sections and listed in Table 4-3.

Table 4-1. Major equipment list and description for the PM-2A Tanks.

Quantity	Equipment	Description
1	Vacuum system	Vacuum extraction system with 100-ft of 5-in. hose, with wand, 75 hp motor.
1	Impact Manipulator	BROKK
1	End-Effector	Hydraulic chisel, SBC 610 with asphalt cutting tool (230 mm wide) and moil-point tool
1	Fogger	System used to fix contamination to tank walls
1	Bulldozer	CAT D8N
1	Backhoe	CASE
7	Soil Waste Container	Roll-offs with Burrito Bags
5	DOT Approved Waste Containers	DOT 7A Type A, Tank Content Waste Container (4 ft x 4 ft x 6 ft; 96 ft^3)
1	Crane	Grove TM9120 120 ton Hydraulic Truck Mounted Crane (30,000 lb "counter weights" are available to verify crane lift capability)
2	Grader	John Deere JD770
2	Excavator	CASE 9060B/John Deere JD690
2	Loader	John Deere 744E / CASE 590
1	Compactor	CAT 815B
1	Vibratory Roller	Ingersol-Rand
5	Tandem 12 yd^3 Trucks	Volvo Autocar/White/International/Ford
1	Tandem 6 × 3,500-gal water Truck	White GMC 3,500 Gal
1	Hydroseeder	GMC Truck
1	Fork Truck	GEHL Extenda-Boom Fork Truck

Table 4-2. Additional support equipment for the PM-2A Tanks site.

Equipment	Description
Mechanical Cutting System	Nibbler or Circular Saw
Web Slings	10,000 lb capacity and 60 ft length
Tag Lines	1/2 in. High Strength Poly Rope (2 each 60 ft length)
Hoisting and Rigging Spreader Bar	28,000 lb capacity W8x31 beam w/two balanced lifting devices ($1\ ^1/_8$ in. diameter 2 leg sling steel cables with open swaged sockets)
Steel Wedges and Shims	Commercially available
Powered Backpack Sprayer System w/Strippable Paint	Commercially available

Table 4-2. (continued).

Equipment	Description
Ambient Air Monitoring Stations	To be selected by INEEL RADCON and IH/SO
Sampling/Survey Equipment	Ludlam 2A handheld monitors / high purity germanium detector / portable gamma scintillometer w/sodium iodide detector

Table 4-3. Major equipment list and description for TSF-03.

Quantity	Equipment	Description
2	Grader	John Deere JD770
2	Excavator	John Deere JD690/Case 9060
2	Loader	John Deere 744 / CASE 590
1	Bulldozer	CAT 8DN
1	Compactor	CAT 815B
1	Vibratory Roller	Ingersol-Rand
1	Tandem 12 yd^3 Truck	Volvo Autocar/White/International/Ford
1	Tandem 6 × 6 5,000-gal water truck	White GMC 3,500 Gal
1	Tractor-trailer 20 yd^3 truck	Ranch Belly Dump
1	Hydroseeder	GMC Truck

4.3.2.1 Support Equipment. Miscellaneous support equipment such as portable generators, air compressors, etc., will be provided on an as-needed basis.

4.3.3 WRRTF-01

The recommended equipment to be used in the remediation of WRRTF-01 is identified in the following section and listed in Table 4-4.

4.3.3.1 Earthwork Equipment. This equipment is similar to equipment used at the PM-2A Tanks site, and may not be available if the work is performed concurrently.

Table 4-4. Major equipment and description for WRRTF-01 Pits II & IV.

Quantity	Equipment	Description
1	Grader	John Deere 770
1	Bulldozer	CAT D8N
1	Compactor	CAT 815B
1	Vibratory Roller	Ingersol-Rand
1	Tandem 12 yd^3 Truck	Volvo Autocar/White/International/Ford
1	Tandem 6 × 6 5,000-gal water Truck	White GMC 3,500 Gal
1	Hydroseeder	GMC Truck

5. ENVIRONMENT, SAFETY, HEALTH, AND QUALITY

Compliance with environmental requirements identified as ARARs for the Group 3 RAs are incorporated into the RDs, as discussed in Section 2 of this document. Work activities will be completed in accordance with the project-specific environmental checklist.

Worker safety and health will be ensured through compliance with the project HASP and implemented through INEEL work control processes. Goals will be developed for project personnel performing radiological work that are as low as reasonably achievable (ALARA). Safe work documents, such as radiation work permits, job safety analyses, and a Hazard Profile Screening Checklist will be developed in accordance with existing INEEL procedures and systems to implement the HASP requirements. They will be modified, supplemented, or generated (as necessary) during work activities to address changing conditions onsite or revisions to work methods described in the planning documents.

The hazard classification for the PM-2A Tanks and Burn Pit activities is designated as a Less-Than-Category 3 nuclear facility. It is also anticipated that the safety category designation assigned to these activities in accordance with MCP-540 will be "Consumer Grade" or Quality Level 4.

6. REMEDIAL ACTION WORK PLAN

The RDs, RA work tasks, and supporting documents for the PM-2A Tanks site, and Sites TSF-03, and WRRTF-01 will be implemented as described in the following sections.

6.1 Project Controls

Project controls include field oversight and construction management, access control, protocol and coordinating field oversight, project cost estimate, and the project schedule. These controls are described in the following sections.

6.1.1 Field Oversight and Construction Management

The DOE-ID remediation project manager (PM) will be responsible for notifying the EPA and IDEQ of project activities such as project startup, closeout, and inspections. The DOE-ID remediation PM will also serve as the single interface point for all routine contact between the Agencies, the WAG 1 PM, and the INEEL management and operations contractor.

The INEEL management and operations contractor will provide field oversight and construction management services for this project as well as field support services for health and safety, radiological control, environmental compliance, quality assurance, and landlord services. An organization chart and position description is provided in the project HASP (INEEL 2003b). The INEEL management and operations contractor will also direct subcontractors performing work on site, as applicable.

Visitors to the site who wish to observe activities must meet badging and training requirements necessary to enter INEEL Facilities. Training requirements for visitors are described in Section 4 of the project HASP.

6.1.2 Project Cost Estimate

The cost estimates for the three sites addressed by this work plan are presented in Appendix D to this plan. These costs will be revised, as necessary, to reflect the most current estimate, based on comments to the design and other data.

6.1.3 Project Schedule

The working schedule for each Group 3 site is provided in Figure 6-1. The deliverable schedule with the planned/working schedule dates and the enforceable dates through the completion of the remedial action report is provided in Table 6-1. Administrative and document preparation activities are based on an 8-hour, 5-day workweek, while field activities are based on a 10-hour, 4-day workweek. The schedules for the RAs do not include contingency for delays due to late or slow document reviews or for delays to field activities due to inclement weather.

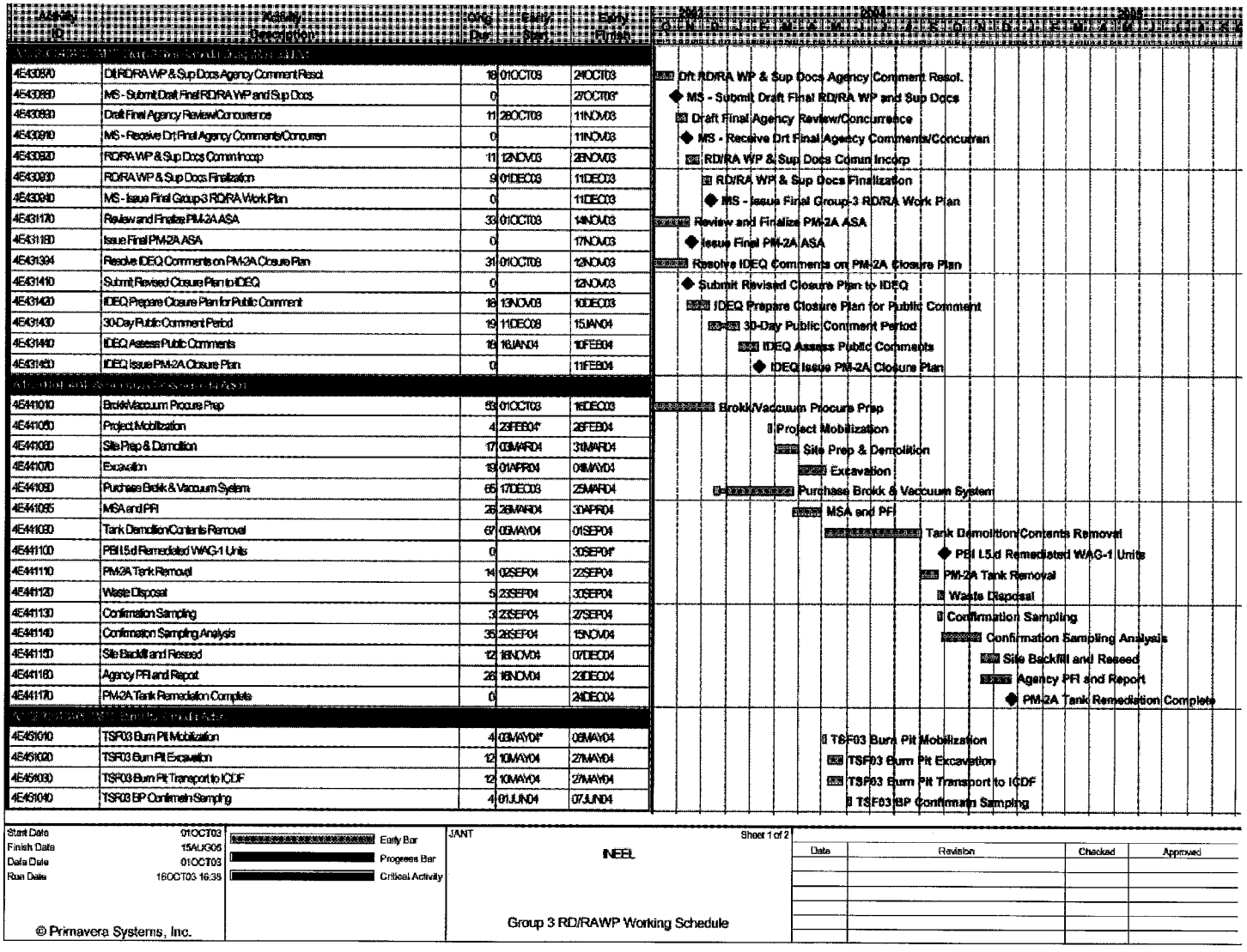


Figure 6-1. Working schedule.

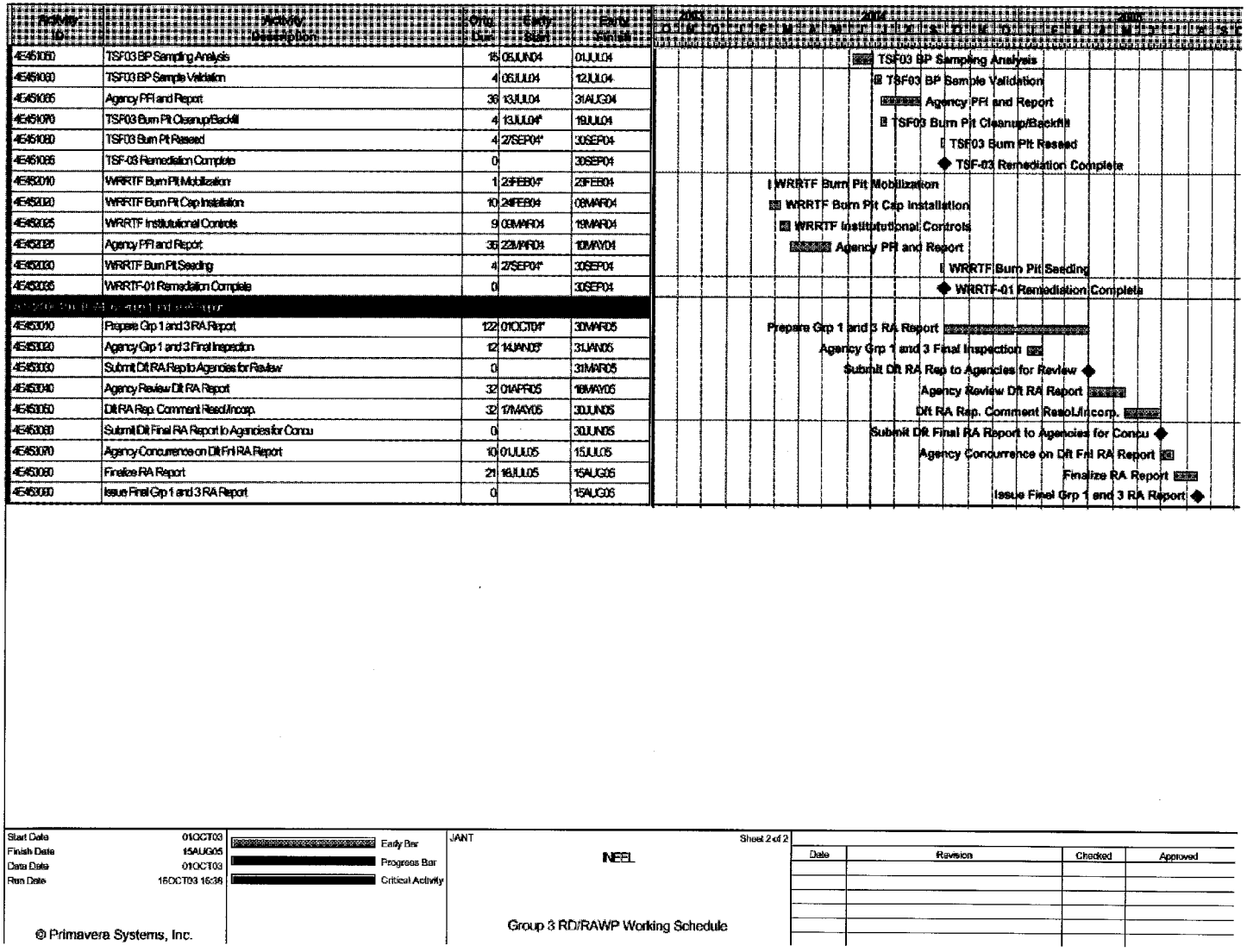


Figure 6-1. (continued).

Table 6-1. Deliverable schedule for the OU 1-10 Group 3 PM-2A Tanks, TSF-03, and WRRTF-01 RD/RA.

Activity	Planned Start Date	Planned Completion Date	Document Type/ Review Period [b]	Enforceable Milestone
Remedial Design (Group 3 RD/RA Work Plan)				
Remedy Selection for Burn Pits (Native Soil Cover or Excavate and Dispose)	10/01/02	12/31/02		
Submittal of Draft OU 1-10 Group 3 RD/RA Work Plan to Agencies	NA	07/28/03	Primary	09/30/2004 [a]
Agencies Review of Draft Group 3 RD/RA Work Plan	07/29/03	09/12/03	45	
Prepare Draft Final OU 1-10 Group 3 RD/RA Work Plan	09/13/03	10/27/03		
Submittal of Draft Final OU 1-10 Group 3 RD/RA Work Plan to Agencies	NA	10/27/03		
Agencies Review/Concurrence of Draft Final Group 3 RD/RA Work Plan	10/28/03	11/11/03	15	
Prepare Final OU 1-10 Group 3 RD/RA Work Plan	11/12/03	12/10/03	15 [c]	
OU 1-10 Group 3 RD/RA Work Plan Finalized	NA	12/11/03		
PM-2A Tanks Remedial Action				
Begin PM-2A Tanks remedial action	02/15/04	NA		
Submittal of Draft Pre-final Inspection Checklist before PM-2A Tanks contents removal	NA	03/15/04		
Agency Review of Draft Pre-final Inspection Checklist	03/16/04	3/31/04	15 [d]	
Agency Pre-final Inspection before PM-2A Tanks contents removal	04/01/04	04/07/04		
Submittal of Pre-final Inspection Report for Agency Review	NA	04/15/04	Secondary	
Agency Review of Pre-final Inspection Report	04/15/04	04/30/04	15 [d]	

Table 6-1. (continued).

Activity	Planned Start Date	Planned Completion Date	Document Type/ Review Period [b]	Enforceable Milestone
Complete PM-2A Tanks contents removal	NA	8/31/04		
Complete PM-2A Tanks contents waste transportation, treatment, and disposal	NA	10/31/04		
Complete PM-2A Tanks site backfill	NA	11/30/04		
Submittal of Draft Pre-final Inspection Checklist	NA	10/31/04		
Agency Review of Draft Pre-final Inspection Checklist	11/01/04	11/15/04	15 [d]	
Agency Pre-final Inspection after PM-2A Tanks remedial action completion (excluding revegetation)	12/01/04	12/05/04		
Submittal of Pre-final Inspection Report for Agency Review	NA	12/07/04	Secondary	
Agency Review of Pre-final Inspection Report	12/08/04	12/23/04	15 [d]	
Complete PM-2A Tanks site revegetation and implementation of institutional controls (if required)	NA	12/07/04		
TSF-03 and WRRTF-01 Remedial Action				
Begin WRRTF-01 Burn Pits remedial action	2/15/04	NA		
Begin TSF-03 Burn Pit remedial action	4/15/04	NA		
Complete WRRTF-01 remedial action (excluding revegetation)	NA	4/30/04		
Complete TSF-03 Burn Pit remedial action (excluding backfill and revegetation)	NA	7/15/04		
Submittal of Draft Pre-final Inspection Checklist	NA	5/30/04		
Agency Review of Draft Pre-final Inspection Checklist	06/01/04	06/15/04	15 [d]	

Table 6-1. (continued).

Activity	Planned Start Date	Planned Completion Date	Document Type/ Review Period [b]	Enforceable Milestone
Agency Pre-final Inspection after TSF-03 and WRRTF-01 Burn Pits remedial action completion (excluding revegetation)	07/16/04	07/20/04		
Submittal of Pre-final Inspection Report for Agency Review	NA	08/14/04	Secondary	
Agency Review of Pre-final Inspection Report	08/15/04	08/31/04	15 [d]	
Complete TSF-03 and WRRTF-01 Burn Pits site revegetation and implementation of institutional controls (if required)	NA			
OU 1-10 Groups 1 and 3 Remedial Action Report				
Agency Final Inspection	01/15/05	01/31/05		
Submittal of Draft OU 1-10 Groups 1 and 3 RA Report to Agencies	NA	03/31/05	Primary	03/31/2006
Agencies Review of Draft Groups 1 and 3 RA Report	04/01/05	05/15/05	45	
Prepare Draft Final OU 1-10 Groups 1 and 3 RA Report	05/16/05	06/29/05	45	
Submittal of Draft Final OU 1-10 Groups 1 and 3 RA Report to Agencies	NA	06/30/05		
Agencies Review/Concurrence on Draft Final Groups 1 and 3 RA Report	07/01/05	07/15/05	15	
Prepare Final OU 1-10 Groups 1 and 3 RA Report	07/16/05	08/14/05	15 [e]	
OU 1-10 Groups 1 and 3 RA Report Finalized	NA	08/15/05		
OU 1-10 Five Year Review				
Perform OU 1-10 Five Year Review and Prepare Five Year Review Report	TBD e	TBD [e]		
Submittal of OU 1-10 Five Year Review Report	NA	02/28/05	Secondary	

Table 6-1. (continued).

Activity	Planned Start Date	Planned Completion Date	Document Type/ Review Period [b]	Enforceable Milestone
Agency Review of OU 1-10 Five Year Review Report	TBD e	TBD [e]	30	
OU 1-10 Five Year Review Report Finalized	NA	TBD [e]		

a. The enforceable date was established in Section 7 of the Comprehensive RD/RA Work Plan for the TAN, WAG 1, OU 1-10, Group 2 Sites (DOE-ID 2002b).

b. Review periods are consistent with Section 8.13 of the FFA/CO (DOE-ID 1991) and are stated in calendar days.

c. An additional two weeks are allowed for printing and compilation of finalized documents.

d. An 15-day review period is provided to expedite completion of the pre-final inspection process.

e. The first five-year review is planned for 2005. Specific dates will be determined in the future based on a new INEEL five-year review plan that will be submitted to the Agencies for review before or during the summer of 2004.

6.2 Remedial Action Work Tasks

This following sections provide descriptions of the RA work tasks planned for implementing the PM-2A Tanks, TSF-03 and WRRTF-01 RDs. Sections 6.2.1 through 6.2.15 identify general tasks that are common to each of the three sites. Sections 6.2.16 through 6.2.18 provide descriptions of the specific remediation activities that will be performed at each of the sites. The applicable drawings and specifications are provided in Appendices C, D, and E. The general remedial action activity sequences are shown in Appendix H.

6.2.1 Access Control

Temporary access control fencing will be installed to restrict access into the work area by wildlife or unauthorized personnel and to prevent heavy equipment from driving over subsurface structures (e.g., tanks, piping, etc.). Existing fencing around portions of the sites may be used to establish the access control boundaries. Contamination control fencing around contaminated areas will be colored plastic safety fencing or equivalent. Ingress and egress control of contaminated areas will be defined in the project HASP (INEEL 2003b) and appropriate Radiological Work Permits.

6.2.2 Pre-mobilization

Prior to mobilization for each RA, all associated documentation to support the work control for that task will be prepared and approved. These activities ensure operational readiness prior to mobilization. Job Safety Analyses, radiological work permits, ALARA reviews, confined space entry permits, operational procedures, and other work control forms will be prepared for each major portion of the RA as appropriate. Waste Determinations and Disposition forms and waste material profiles will be prepared. Additional activities include subsurface investigations to identify lines, utilities, and subsurface structures; preparing lift plans; pre-job briefings; and equipment procurement. Start-up authority will be granted by the TAN ICP Director.

6.2.3 Mobilization

Mobilization will begin with site preparation activities. These activities include establishing radiological control stations, monitoring locations, and control zones. Site preparation will require installing temporary barriers and signs, and establishing, registering, and equipping an approved CERCLA waste storage area. Existing site access roadways will be used where possible; additional road construction will occur as specified in the individual RDs for each site. Mobilization will also include the sequenced delivery of equipment and personnel to the site, as needed.

6.2.4 Clearing and Grubbing

The sites will be cleared of shrubs, vegetation, fences, and other debris, as identified in the construction specifications. Disturbance of underlying soils will be minimized during all clearing and grubbing activities, which will be performed in accordance with this plan. INEEL site work forces will ensure adequate dust control measures are applied to control fugitive dust from the site during these operations.

6.2.5 Construction Activities

Construction operations will be confined to areas that require remediation or to areas that are required to support remediation. Any areas outside the designated locations that are damaged or disturbed will be repaired and reseeded in accordance with this plan. Construction activities include the specific remediation activities and the applicable specifications and drawings in Appendices C, D, and E. Examples include site preparation, cutting/dismantling the PM-2A Tanks, PM-2A Tanks contents removal, and PM-2A Tanks piping removal.

6.2.6 Soil Excavation

Contaminated soils will be excavated to the extent indicated on the design drawings for the PM-2A Tanks site and TSF-03 as shown in Appendices C and D, respectively. All excavation activities will be performed in accordance with the specifications presented in these appendices.

Precautions such as water spray, wind monitoring, and visual observations will be used to prevent the generation of fugitive dust. Air monitoring requirements will be specified by a radiological control engineer and a certified industrial hygienist. Wind monitoring and visual observations to control fugitive dust will be performed by the industrial hygienist or site health and safety officer. Personal protective equipment, when required, will be used as specified in the project HASP (INEEL 2003b) and applicable radiation work permits, and as determined by the safety officer and/or the certified industrial hygienist present at the job site. Equipment necessary for excavation of the contaminated soils can remain within the decontamination control zones until completion of excavation activities. Barriers, such as tarps and containment pads, will be used to separate the equipment and vehicles that are used to haul excavated soil from the area to prevent the spread of contamination. These vehicles will not be driven directly onto contaminated areas. This strategy will minimize the spread of contamination and eliminate the need to perform any additional decontamination.

6.2.7 Earthwork

Earthwork at the three remediation sites will include excavation and transportation of soils (PM-2A Tanks and TSF-03 will include transportation of contaminated soils to ICDF for disposal); excavation, hauling, and placement of backfill material; and grading and reclamation seeding of the excavated areas. All earthwork will be performed in accordance with this plan.

6.2.8 Storm Water Management and Sediment Control

The specification for the temporary diversion and control of water during construction does not require that a storm water pollution prevention plan be developed for this project. The specifications require control of surface water prior to and throughout the construction operations. Control measures may include berms, ditches, surface contouring, temporary pipes, portable pumps, and any other measures approved by the contractor.

6.2.9 Waste Management

The RAs planned for the PM-2A Tanks and TSF-03 will generate mixed low-level and low level radioactive waste, and possibly industrial waste. All waste streams generated during remediation activities are identified in, and will be managed in accordance with, the project WMP (INEEL 2003a).

6.2.10 Borrow, Haul, and Stockpile

Native soil material will be used as backfill for these projects. All INEEL native soil borrow sources have been previously determined to be free of contamination. Borrow operations will be performed in accordance with the project specifications in Appendices D, E, and F.

Equipment used for the hauling and stockpiling operations will remain outside of radiological control areas. The work will require the services of heavy earthwork equipment such as scrapers, dozers, loaders, and large dump trucks, and will require up-front planning and coordination with other site operations and personnel to ensure safe and productive hauling across facility roads. The project specifications identify BBWI as having responsibility for maintaining the site haul roads during operations and for returning the haul roads to their original conditions.

6.2.11 Post-Excavation Sampling

Post-remediation verification sampling will be performed at the PM-2A Tanks and TSF-03 sites in accordance with the project FSPs (DOE-ID 2003c and 2003e) to ensure that all contamination exceeding CERCLA FRGs has been removed.

6.2.12 Reclamation Seeding

Upon completion of all earthwork activities, reclamation seeding will take place on the backfilled excavations, lay down areas, and on all areas affected by material borrowing, stockpiling, etc. The seeding and mulching will be performed in accordance with this plan. Requirements for subsequent inspection to confirm that revegetation has been successful will be addressed in the next revision of the *Operations and Maintenance Plan for the Test Area North, Operable Unit 1-10* (DOE-ID 2001).

6.2.13 Security

Security and site access control will be provided in accordance with the project HASP for each site to ensure that unauthorized personnel are not allowed access to the sites and that site conditions are controlled at all times during the remediation activities.

6.2.14 Institutional Controls

Institutional controls will be required at Site WRRTF-01 following completion of the remediation activities for this site. Granite monuments will be placed at the corners of the soil covers (see

Attachment 3). Other ICs (i.e., administrative controls), including lease and property transfer restrictions, land use restrictions, and access restrictions will be implemented per the WAG 1 IC plan (INEEL 2000).

Annual inspection of the native soil cover at Site WRRTF-01 will also be required. The requirements for this inspection are provided in the operations and maintenance (O&M) plan for TAN, OU 1-10 (DOE-ID 2001).

Institutional controls will be required at the PM-2A Tanks site if contaminated soil remains above 2.3 pCi/g but below 23.3 pCi/g for Cs-137 in the first 10 ft bgs. The ICs (i.e., administrative controls), including lease and property transfer restrictions, land use restrictions, and access restrictions, will be implemented per the WAG 1 IC plan (INEEL 2000).

Since all contaminants will be removed at Site TSF-03, no ICs will be required after remedial action is completed and previously posted IC signage will be removed.

Note: The WAG 1 IC plan will be superseded by the INEEL Sitewide Institutional Controls Plan for CERCLA Response Actions (DOE-ID 2003f) when the Sitewide plan is approved by the Agencies and issued.

6.2.15 Demobilization

After the RAs have been satisfactorily completed for each site and all equipment properly decontaminated, office trailers and equipment will be removed from the sites, and decontamination pads and temporary fencing will be removed and packaged for disposal, as appropriate.

6.2.16 PM-2A Tanks

The PM-2A Tanks site consists of two abandoned 50,000-gal underground carbon steel storage tanks and the contaminated soil around them. The total volume of waste currently in these tanks is estimated at 7,700 gal and is contaminated with Sr-90, Cs-137, and other contaminants such as F001-listed wastes, semi-volatiles and metals. The tops of the tanks are approximately 14-ft below original ground surface and the tanks rest in concrete cradles. The PM-2A Tanks site also includes ancillary piping and soil in the immediate vicinity of the tanks.

The planned activities for remediation of the PM-2A Tanks are summarized as follows:

- Perform site preparation and mobilization activities.
- Excavate the site to expose the waste piping associated with the tank system.
- Visually (video) inspect all piping associated with the tank system for residual waste in accordance with the Hazardous Waste Materials Act (HWMA)/RCRA Closure Plan (DOE-ID 2003d).
- If residual waste is present in the piping, air pressure-test the piping associated with the tank system to determine its integrity in accordance with the HWMA/RCRA Closure Plan (DOE-ID 2003d).
- Dispose of all the piping (including that under Snake Avenue) in accordance with the project WMP.
- Excavate down to the tops of the tank cradles.

- Characterize and package any miscellaneous piping and other debris and dispose of them in accordance with the project WMP.
- Cut and remove the top of each tank. This task will be performed on one tank at a time.
- Use a vacuum system connected to a mobile, remote-operated manipulator arm (BROKK) to mix and extract the sludge and DE materials from the tank.
- Collect the waste in containers for transport and disposal at the ICDF.
- Grout the containers at the Staging, Storage, Sizing and Treatment Facility (SSSTF) to reduce void volume to less than 5% prior to ICDF disposal.
- Remove the bottom section of the tank from the pit.
- Characterize and dispose of all waste materials removed from the tanks and the tank sections.
- Decontaminate the waste removal equipment and ancillary support systems (e.g., weather enclosures, etc.) in accordance with the project decontamination plan (INEEL 2003c).
- Conduct confirmation sampling of the excavation area in accordance with the applicable FSP.
- Backfill and compact the excavated area using clean soil (less than 23.3 pCi/g Cs-137) after confirmation sampling results are verified.
- Perform final soil contouring, compaction, and reseeding.

Attachment 1 contains the design drawings and specifications, and Appendix C the calculations that detail and support the design and processes that will be used for these activities.

The following sections describe the recommended operational phases proposed for the execution of the PM-2A Tanks remediation activities. As additional detailed work planning occurs, these activities may be modified. If significant modifications are required, this document will be formally modified to reflect the changes. The general remediation activities are shown in Appendix H.

6.2.16.1 Site Preparation.

- Establish site controls – project boundaries, roadways and vehicle access, temporary fencing, etc.
- Establish decontamination and stormwater runoff collection areas.
- Establish CERCLA waste storage areas.
- Buildup roadway and laydown areas as necessary.
- Setup and install project trailers - office, personnel change, and tool/equipment/materials storage.
- Install electrical power.
- Locate and isolate utilities running through the area.

- Lock-out/tag-out all underground utilities as needed - electrical, air, water, etc. This task may require some excavation to locate lines.
- Setup access control/air monitoring equipment.
- Stage necessary equipment – 12 yd^3 tandem truck, motor grader, steel drum vibratory roller, water truck, etc.
- Grade and gravel PM-2A Tanks site general area as needed to support excavation equipment. Level any surface irregularities to allow free access by equipment and personnel.
- Stage waste containers with liners.

6.2.16.2 Tank Excavations.

- Start excavation of PM-2A Tanks.
- Uncover and remove all abandoned utility lines.
- Perform visual inspection and testing of the PM-2A waste lines as specified in the HWMA/RCRA Closure Plan (DOE-ID 2003d).
- Remove the waste piping, package as MLLW and place into waste containers.
- Cut and remove all other miscellaneous lines and materials and place into waste containers.
- Perform soil excavation until the top halves of the PM-2A Tanks are exposed down to the tops of the cradles while segregating the soils (final excavation may require hand-excavation).
- Conduct radiological surveys for approximately every 10 yd^3 of soil excavated.
- Stockpile soil below contamination limits in a designated area (CERCLA Waste Storage Area) within PM-2A Tanks area for use as backfill.
- Package soil with contaminant concentrations above the soil FRGs for disposal at the ICDF.
- Transport waste containers to ICDF.
- Excavate a ramp to the bottom of the PM-2A Tanks excavation and establish the working platform/equipment laydown areas around the tanks.
- As the excavation proceeds, remove the PM-2A Tanks manhole extensions and place them into waste containers.
- Add additional DE to tank V-14 through the sample access points, recording the mass of DE added.

6.2.16.3 Tanks and Contents Removal. It is initially planned that tank content removal will begin with tank V-14; however, the sequence may be reversed.

- Place shielding (concrete barriers) along tank V-14 (west tank), between the two tanks.

- As necessary, scrape off the exterior tar coating of tank V-14 to facilitate cutting operations (a 1/16 in. thick tar coating present on tank exteriors for corrosion control).

- "Fog" the inside of the tank to control spread of contamination.

- Cut the perimeter around the top of V-14 tank using a mechanical cutting method.

- Lift the top of tank V-14 and place on the temporary cover in the designated laydown area to contain any loose debris and contamination within the tank top half. Fogging may be used as necessary.

- If necessary, place a temporary plastic cover over the bottom section of tank V-14.

- Based on observed contamination levels (e.g., visual, smears), ensure that the tank meets transportation and disposal criteria per the WMP.

- Rotate the top half of the tank using the crane and package it using applicable bagging system (requires multiple lifts by crane, cutting the bag to allow placement of lifting slings, and taping and sealing of bag openings for transportation).

- Lift the packaged tank V-14 top half to the transport trailer, place on dunnage blocking, and secure with approved restraint strapping.

- Transport the top section of tank V-14 to ICDF for disposal. The ICDF WAC will require revision to allow disposal of the tank half shells.

- Set up the vacuum system, retractable tank cover system with ventilation system, and DOT certified waste box in the designated location of the excavation.

- Set up the weather enclosures over the tank area and waste removal vacuum system area.

- Attach the vacuum system to the BROKK manipulator and stage the removal system.

- Break up/mix and vacuum the tank contents, replacing waste boxes as necessary. Place the full boxes in the waste box CERCLA storage/staging area. Additional DE may be added as needed to absorb any liquids present.

    - Waste containers will be moved to the CERCLA Waste Storage Area using a large articulated, wheeled loader with forklift attachment.

    - Waste containers will be shipped to the ICDF for disposal and the ICDF SSSTF will grout the waste boxes to fill the remaining void space prior to placement into the disposal cell.

- Disconnect the waste removal system as necessary for removal of the tank weather enclosure while maintaining contamination control.

- Based on observed contamination levels (e.g., visual, smears), ensure that the tank meets transportation and disposal criteria per the WMP.

- Remove the tank weather enclosure, tank cover, and waste removal system. The tank bottom may be fogged prior to removal of the tank cover. The vacuum system weather enclosure will remain in place.
- Excavate around the bottom section of the tank to provide lifting access. Lift and remove the bottom section of the V-14 tank.
- Package the bottom half of the tank using the applicable bagging system (requires multiple lifts by crane, cutting the bag to allow placement of lifting slings, and taping and sealing of bag openings for transportation).
- Lift the packaged tank V-14 bottom half to the transport trailer, place on dunnage blocking, and secure with approved restraint strapping.
- Transport the bottom section of tank V-14 to the ICDF for disposal.
- As necessary, scrape off the exterior tar coating of tank V-13 (east tank) to facilitate cutting operations (a 1/16 in. thick tar coating present on tank exteriors for corrosion control).
- Fog the inside of the tank to control the spread of contamination.
- Cut the perimeter around the top of tank V-13 using a mechanical cutting method.
- Lift the top of tank V-13 and place on a temporary cover in the designated laydown area (to contain any loose debris and contamination within the tank top half). Fogging may be used as necessary.
- If necessary, place a temporary plastic cover over the bottom section of tank V-13.
- Based on observed contamination levels (e.g., visual, smears), ensure that the tank meets transportation and disposal criteria per the WMP.
- Rotate the top half of tank using the crane and package it using the applicable bagging system (requires multiple lifts by crane, cutting the bag to allow placement of lifting slings, and taping and sealing of bag openings for transportation).
- Lift the packaged tank V-13 top half to the transport trailer, place on dunnage blocking, and secure with approved restraint strapping.
- Transport the top section of tank V-13 to the ICDF for disposal.
- Set up the vacuum system, retractable tank cover system with ventilation system, and DOT certified waste box in the designated location of the excavation.
- Set up the weather enclosure over the tank area.
- Attach the vacuum system to the BROKK manipulator and stage the removal system.
- Break up/mix and vacuum the tank waste, replacing waste boxes as necessary. Place the full boxes in the waste box CERCLA storage/staging area. Additional DE may be added as needed to absorb any liquid present.

- Waste containers will be moved to the CERCLA Waste Storage Area using a large articulated, wheeled loader with forklift attachment.

- Waste containers will be shipped to the ICDF for disposal and the ICDF SSSTF will grout the waste boxes to fill the remaining void space prior to placement into the disposal cell.

- Disconnect the waste removal system as necessary for removal of the tank weather enclosure while maintaining contamination control.

- Based on observed contamination levels (e.g., visual, smears), ensure that the tank meets transportation and disposal criteria per the WMP.

- Perform final decontamination of -applicable waste removal vacuum system equipment.

- Remove the tank weather enclosure, waste removal system weather enclosure, tank cover, and waste removal system and place adjacent to the excavation for final disposition. The tank bottom may be fogged prior to removal of the tank cover.

- Excavate around the bottom section of the tank to provide lifting access. Lift and remove the bottom section of the V-13 tank.

- Package the bottom half of the tank using the applicable bagging system (requires multiple lifts by crane, cutting the bag to allow placement of lifting slings, and taping and sealing of bag openings for transportation).

- Lift the packaged tank V-13 bottom half to the transport trailer, place on dunnage blocking, and secure with approved restraint strapping.

- Transport the bottom section of tank V-13 to the ICDF for disposal.

- Establish a sampling grid and sample the excavation area in accordance with the project FSP (DOE-ID 2003c).

6.2.16.4 Excavation Area Backfill and Compaction

After all soil samples have been collected and analyses confirm that the remaining soil concentrations within the media are below the FRG of 23.3 pCi/g Cs-137, the backfilling and compaction operations will be performed.

- Backfill the excavation with the stockpiled clean soil. Haul backfill material from the TAN gravel pit as required to fill the excavation.

- Compact the excavation area during backfill. Fill will be spread and compacted using 6 in. to 1 ft-thick lifts.

- Backfill, compact and contour the remaining area within the PM-2A Tanks site fenced area that had been excavated prior to the start of these operations.

- Establish the final grade within the PM-2A Tanks site fenced area.

- Scarify the surface and reseed the project area using the specified INEEL "Native Grasses Mix."

6.2.16.5 Equipment Decontamination and Demobilization

- Setup equipment decontamination pads.
- Perform decontamination of the equipment as necessary. Ensure all sampling is performed in accordance with the project decontamination plan (INEEL 2003c).
- Verify that equipment is decontaminated, or take appropriate action for contaminated items per the requirements of the project decontamination plan.
- Demobilize equipment.
- Remove project trailers and appurtenances.
- Cleanup and restore the site.

6.2.17 TSF-03 Burn Pit

The TSF-03 Burn Pit is located in the northeast corner of the TSF, outside the facility fence, and was used from 1953 to 1958 for open burning of construction debris. The surface boundary dimensions are estimated to be a triangle shape that is approximately 205 ft long and 120 ft wide. It is covered with approximately 2 to 6 ft of clean soil. Sampling of the burn pit in 2000 and 2001 identified lead above the EPA Region IX screening level for lead of 400 mg/kg. While this concentration of lead triggered the removal of the burn pit waste, the analysis confirmed that the waste did not meet the definition of a RCRA hazardous waste. Therefore, the waste does not require treatment to meet RCRA LDRs.

The planned remediation activities for TSF-03 are as follows:

- Excavate and remove the burn pit soil and debris. Removed material will be packaged and shipped to ICDF for disposal.
- Sample to verify that no contaminated materials remain in place above ROD-specific levels.
- Backfill the excavation area with clean soil from the TAN gravel pit.
- Provide final soil surface contouring and compaction.
- Reseed the project area.

Attachment 2 contains the design drawings and specifications, and Appendix C the calculations that show and support the detailed design and processes that will be used for completing these activities.

The following sections describe the recommended operational phases that are proposed for the execution of the TSF-03 remediation activities. As additional detailed work planning occurs, these activities may be modified. If significant modifications are required, this document will be formally modified to reflect the changes. The general remediation activities are shown in Appendix H.

6.2.17.1 Site Preparation

- Establish site controls – project boundaries, roadways and vehicle access, temporary fencing, etc.

- Buildup roadway and laydown areas as necessary for administrative areas.
- Setup and install any project trailers.
- Setup electrical power generators and other utilities as needed.
- Setup any access control/monitoring equipment.
- Stage necessary equipment - 12 yd^3 tandem truck, motor grader, trackhoe, dozer, sheepsfoot with blade, water truck, etc.
- Strip the top soil and clean cover from the TSF-03 general area excavation. Top soil and cover are to be stripped off to approximately 1 ft 6 in. depth below the existing grade and segregated.
- Conduct radiological surveys of soil for approximately every 100 yd^3 of soil excavated.
- Stage clean soil in a designated area (CERCLA Waste Storage Area) within TSF-03 for use as backfill.
- Stage waste containers.

6.2.17.2 *Excavation Boundaries Definition and Equipment Access Installation*

- Excavate along the eastern edge of the TSF-03 Burn Pit. Transfer clean soil to the segregated stockpile laydown area.
- Place potentially contaminated pit waste materials into waste containers.
- Waste containers are to be placed at the top of the excavation for ease of handling.
- Excavate the pit access ramp.
- Compact the excavation side slopes.

6.2.17.3 *Waste Excavation, Handling and Disposal*

- Establish a dig face within the pit for waste excavation. Start at southeast corner of the pit.
- Excavate the waste so that there is working room available for the loader, working from top to bottom of the pit and from east to west, progressing northward from the south end of the pit.
- Place the excavated waste into transport waste containers.
- Load waste containers for transport to ICDF.
- Transport waste containers to ICDF.
- Establish a clean bottom for the TSF-03 Burn Pit.
- Grid and sample soil excavation in accordance with the TSF-03 FSP.

6.2.17.4 *Excavation Area Backfill and Compaction*

After all soil samples have been collected and analyses confirm that the remaining concentrations comply with the FRGs for lead, the backfilling and compaction operations will be performed.

- excavation with the clean, stockpiled soil. Bring in backfill material from the TAN gravel pit, as required.
- Compact the pit and excavation area. Fill will be spread and compacted using 6 in. to 1 ft-thick lifts.
- Scarify the surface area and reseed using the specified INEEL "Native Grasses Mix".

6.2.17.5 *Equipment Decontamination and Demobilization*

- Setup equipment decontamination pads.
- Perform decontamination procedures for equipment.
- Verify that equipment is not contaminated, or take appropriate action for contaminated items, in accordance with the project decontamination plan.
- Demobilize equipment.
- Remove any project trailers and appurtenances.
- Cleanup and restore the site.

6.2.18 WRRTF-01 Burn Pits II and IV

The WRRTF-01 Burn Pits are located approximately 2,700 ft north of WRRTF, outside the facility fence. The total surface boundary dimensions of this site are estimated to be 400 by 164 ft, and the burn pit area is covered with approximately 0.5 to 9 ft of clean soil and vegetation.

The planned remediation activities for WRRTF-01 Burn Pits II and IV are as follows:

- Level the existing pit surfaces, without intruding into the pit material. Bring in extra fill as required.
- Construct a surface cover using natural soil materials.
- Provide final soil surface contouring and compaction.
- Reseed the project area.
- Place granite monuments to mark pit boundaries.

Attachment 3 provides the design drawings and specifications, and Appendix C the calculations that show and support the detailed design and processes that will be used for completing these activities.

The following sections describe the recommended operational phases that are proposed for the execution of the WRRTF-01 remediation activities. As additional detailed work planning occurs, these activities may be modified. If significant modifications are required, this document will be formally modified to reflect the changes. The general remediation activities are shown in Appendix H.

6.2.18.1 Site Preparation

- Clear and grub the site as required for operations.
- Construct new roadways to replace any portion impacted by cover as necessary .
- Compact existing fill.
- Level compacted pits by filling in existing low spots, bringing in extra fill as required.
- Place on-site fill in 6 in. to 12 in. lifts and compact.
- Grade the site to provide natural drainage away from covered pits.
- Reseed to promote stabilization of the final soil cover (will be performed as soon as weather permits).
- Schedule and complete a landfill Site Closure Inspection by authorized IDEQ and EPA representatives prior to demobilization.
- Place granite monuments as shown in the design drawings (Attachment 3).

6.2.18.2 Equipment Demobilization

- Remove any project trailers and appurtenances.
- Demobilize equipment.
- Clean up and restore the site.

6.3 Inspections

Upon completion of RA construction activities for each site, pre-final and final inspections will be performed at each site at the discretion of the Agency PMs or designees. Periodic inspections can occur at any time during remediation activities and will be conducted to finalize all project work elements. The inspections will establish compliance with the RD for each site and the remediation activities outlined in this RA work plan.

6.3.1 Pre-final Inspection

Pre-final inspections are performed by the Agencies or their designees, typically at the completion of the RA construction activities at a given site, to determine the status of those activities and to identify outstanding construction requirements and actions necessary to resolve any issues identified. For a remedial action that involves utilization of processing or treatment systems, a pre-final inspection may also be conducted prior to the start of processing or treatment system operations.

Two pre-final inspections are planned for the PM-2A Tanks site: one prior to removal of the tank contents and one following completion of the remediation. A single pre-final inspection will be performed following completion of the remediation at sites TSF-03 and WRRTF-01. The pre-final inspection following remediation at each site may be performed prior to final site revegetation, with the revegetation identified as an outstanding item on the pre-final inspection checklist.

For simple remediation projects and those not involving treatment, such as at Sites TSF-03 and WRRTF-01, and assuming there are no significant findings identified during the pre-final inspection, the pre-final inspection may also serve as the final inspection.

A pre-final inspection checklist will be developed for each pre-final inspection conducted at the three sites to document any unresolved or open items and the required actions for their resolution or completion. The checklists will contain specific project systems, components, start-up test procedures, or other areas agreed upon by the Agencies that will be inspected for acceptance of construction activities. The focus is on RA elements significant to meeting the requirements of the ROD. Backup sheets may be required to describe each item on the checklist and the criteria for acceptance/rejection of each item.

A draft pre-final inspection checklist will be provided to the Agencies for review and input, with a review period of 15 calendar days. Following Agency review, the checklist will be finalized for use in conducting the pre-final inspection. DOE-ID will notify the Agencies at least 2 weeks prior to the pre-final inspection date so the Agencies can make arrangements to conduct the inspection.

Results of each pre-final inspection will be documented in a pre-final inspection report, which will be issued as a DOE report and will contain the following elements:

- The names of all inspection participants.
- Specific project elements/hold points that were inspected.
- The completed pre-final inspection checklist documenting the performance of the inspection and all inspection findings.
- Open items identified during the inspections.
- Corrective actions to be taken to close open items or to correct deficiencies, acceptance criteria or standards, and planned dates for completion of the actions. A corrective action plan may be developed to address open items or deficiencies that cannot be closed during the pre-final inspection.
- Date of final inspection (if required).

The completed pre-final inspection checklist will be included as an appendix to the pre-final inspection report. A pre-final inspection report will be prepared for each pre-final inspection conducted at the three sites. The pre-final inspection report will not be revised, but rather will be finalized in the context of the remedial action report. The schedule for conducting the pre-final inspections and submitting the pre-final inspection report is included in the overall schedule for each RA (see Section 6.1.3).

6.3.2 Final Inspection

A final inspection may be scheduled for and conducted at the completion of the RA for each site. The Agency PMs will determine the need for a final inspection based on the results of the pre-final inspection. The final inspection will verify the closure of open items from the pre-final inspection and will confirm and document that the FRGs have been met. Results of the final inspection will be documented in the remedial action report.

6.4 OU 1-10 Groups 1 and 3 Remedial Action Report

A RA report will be prepared to address all Group 1 (TSF-06 and TSF-26 Surfaces Soil) and Group 3 (PM-2A Tanks, TSF-03 Burn Pit, and WRRTF-01 Burn Pits) sites. The draft OU 1-10 Groups 1 and 3 RA report, a primary document, will be submitted within 60 days after the final inspection for OU 1-10 Group 1 and 3 sites.

The RA report will incorporate the results of the final inspection for each site and will include:

- Identification of the work defined in the Group 1 RD/RA work plan and this Group 3 RD/RA work plan for each remediation site, certification that the work was performed and that FRGs have been met, and, for TSF-06, TSF-26 and WRRTF-01, are protective for all residual contaminants.
  - Restatement of RAOs
  - Listing of all documents used in performing the remediation (i.e., RD/RA work plan and supporting documents, work orders, environmental checklist, subcontracts, other project documents, etc.)
  - Summary of work performed to complete the remedial action
  - Summary of sampling performed and sampling data results that support the completion of remedial action
  - Summary of other data (i.e., land survey, etc.) that support completion of remedial action
  - Summary of contaminated soil design volumes and find volumes of contaminated soil disposed of at ICDF
  - Summary of waste stream disposition (i.e., quantity generated and disposed, disposal location, etc.)
  - Certification of remediation completion (including reference to HWMA/RCRA closure for PM-2A Tanks).
- Explanation of any modifications to the Group 1 and Group 3 RD/RA work plans.
- Any modifications made to the RD during implementation of the RAs, including the purpose of the performed modifications and the results of those modifications.
- Problems encountered during implementation of the RAs and resolutions to those problems.

- Any outstanding items from the pre-final inspection checklist with a description of how the outstanding items were closed.

- Documentation of the results of the final inspections.

- An O&M plan update to address environmental monitoring and/or inspection of soil caps, if necessary.

- Identification of changes to institutional controls based on remediation completion (to be incorporated into INEEL Sitewide Institutional Controls Plan for CERCLA Response Actions (DOE-ID 2003f).

- As-built drawings showing final contours, if necessary.

If remedial action of a Group 1 or 3 site is completed significantly earlier than the other Group 1 or 3 sites, a remediation completion report may be prepared and submitted, as agreed by the Agencies. The remediation completion report would include the same information, as applicable, as the RA report and would be prepared as a secondary document with a 30-calendar day review period. The site covered in the remediation completion report would also be addressed the RA report.

6.5 Supporting Documents

The following sections provide a brief description of the documents that support the OU 1-10 Group 3 RA activities addressed in this RD/RA work plan.

6.5.1 Decontamination Plan

The project decontamination plan (INEEL 2003c) specifies the methods and techniques to be used to decontaminate equipment used during remediation activities at the PM-2A Tanks site and TSF-03. Because of the excavation component associated with both remedies, and the removal of the tank contents at the PM-2A Tanks, decontamination activities will be required for both RCRA and radiological contamination. The WRRTF-01 remedy is installation of a native soil cover, and no waste intrusion will occur. Therefore, no decontamination is required.

Prior to completing the remediation activities at these sites, all equipment and tools of significant value that were in contact with contaminated media will be decontaminated for future use. The contents of the PM-2A Tanks are F001-listed hazardous and radioactive waste. Therefore, the RCRA objective of decontaminating the ancillary components and equipment used to remove the tank contents and excavate the tanks is to meet the RCRA treatment standards for hazardous debris and to allow them to be reused and/or disposed of at ICDF.

The primary contaminant of concern at TSF-03 is lead. Based on the currently available sampling data, however, it is assumed that the soil is not hazardous as defined by RCRA and will not require treatment prior to its disposal at ICDF. Therefore, the objective of decontaminating the equipment used to remediate this site is to remove all visible contaminated material from the equipment.

The radiological objective of decontaminating the ancillary equipment used to remediate the PM-2A Tanks is to achieve free release of the equipment for unrestricted use elsewhere. Radiological contamination in the TSF-03 burn pit was identified, but it is below EPA's risk-based levels. Its presence at the site necessitates decontaminating the equipment for free release, however. Therefore, the objective

of decontaminating the equipment used there is to achieve free release of the equipment for unrestricted use elsewhere.

6.5.2 Field Sampling Plans

The project FSPs (DOE 2003c and 2003e) were developed using the established EPA Data Quality Objectives process (EPA 2000) and specify sampling objectives, data needs, sampling locations and frequencies, sampling and analytical procedures, and the controls necessary to support the RAs for the PM-2A Tanks and TSF-03. The PM-2A Tanks FSP is designed to support the verification of the RCRA clean closure of the PM-2A Tanks site, and the verification of compliance with the CERCLA FRGs. The TSF-03 FSP supports sampling to verify compliance with CERCLA FRGs. Sampling to characterize secondary waste generated from the RAs for disposal at ICDF is not included in these FSPs. It is assumed that this data will be available to the project from sampling events that are planned to be conducted separate from, and prior to, commencement of the remediation activities. The FSPs are working documents and may be updated as conditions at each site dictate.

6.5.3 Health and Safety Plan

The site specific HASP (INEEL 2003b) has been prepared to provide safety guidance for the personnel working at each remediation site. The HASP addresses the following areas of concern:

- Task-site responsibility
- Personnel training
- Occupational medical program and medical surveillance
- Safe work practices
- Site control and security
- Hazard evaluation
- Personal protective equipment
- Personnel decontamination and radiation control
- Emergency response for the project sites.

Safe work documents, such as radiation work permits and job safety analyses, will be developed in accordance with existing INEEL procedures and systems to implement the requirements of the HASP. They will be modified, supplemented, or generated (as necessary) during the work activities to address changing conditions onsite or revisions to the work methods described in the planning documents. The HASP is a working document and will be reviewed and modified accordingly as the project planning documents are developed and finalized.

6.5.4 Institutional Control Plan

Institutional controls were previously implemented at the TSF-26, TSF-03, and WRRTF-01 sites in accordance with the *Institutional Control Plan for the Test Area North Waste Area Group 1* (INEEL 2000). Current institutional controls are not expected to change after the remediation of the

PM-2A Tanks and WRRTF-01. Institutional controls will no longer be required at TSF-03 once this site is remediated.

Note: The WAG 1 IC plan will be superseded by the INEEL Sitewide Institutional Controls Plan for CERCLA Response Actions (DOE-ID 2003f) when the Sitewide plan is approved by the Agencies and issued.

Upon completion of a remedial action, necessary changes to the institutional controls will be incorporated into INEEL Sitewide Institutional Controls Plan for CERCLA Response Actions (DOE-ID 2003f).

6.5.5 Operations and Maintenance Plan

Operations and maintenance activities for the PM-2A Tanks, TSF-03 Burn Pit, and WRRTF-01 Burn Pits sites are covered in the *Operations and Maintenance Plan for the Test Area North, Operable Unit 1-10* (DOE-ID 2001). A revision to the O&M plan is being made to address the expected changes in O&M requirements following completion of remediation of these sites. This revision to the O&M plan will include requirements for inspection to ensure that site revegetation has been successful. These changes, if necessary, will be reviewed by the Agency PMs and implemented. The O&M plan will be revised further, if necessary, following completion of remediation based on the outcome of the remediation.

6.5.6 Spill Prevention and Response Program

A separate Spill Prevention and Response Plan is not necessary to implement the RAs. Any inadvertent spill or release of potentially hazardous materials will be addressed in "Hazardous Substance/Waste Spill Control, TAN Operating and Maintenance Procedures," (EAR-17, 2002). In the event of a spill, the emergency response plan contained in EAR-17 will be activated. All materials and substances on the work site will be stored and handled in accordance with the applicable regulations and will be stored in approved containers.

6.5.7 Waste Management Plan

The project WMP (INEEL 2003a) is a supporting document to this Group 3 RD/RA work plan. The WMP identifies the waste streams anticipated to be generated during implementation of the RAs at each of the three sites, and details the strategies for waste characterization, minimization, storage, packaging, labeling and transportation, and disposal. Anticipated waste streams include, but are not limited to, soil, piping, debris, and decontamination water from sampling and equipment decontamination activities. Waste minimization and segregation strategies and techniques are incorporated into the RD for each site and listed in the WMP.

6.5.8 Detailed Work Execution Plan

An internal contractor detailed work execution plan (DWEP) is being prepared in support of this RD/RA work plan and provides more detail regarding the work steps and sequences for implementing the remediation field activities for each of the three Group 3 Sites. The DWEP is based on the requirements established in this RD/RA work plan and facilitates preparation of the project-specific HASP and work authorization documents. The strategies for implementing each of the remedies are discussed, as are the resources needed and the procedures and protocols to be followed. Detailed excavation plans for the PM-2A Tanks site and TSF-03 are included as attachments to the DWEP. As an internal contractor document, the DWEP is not submitted to the Agencies for review.

7. CHANGES TO REMEDIAL DESIGN/REMEDIAL ACTION SCOPE OF WORK

The OU 1-10 RD/RA scope of work (SOW) (DOE-ID 2000) describes the preparation of two RD/RA work plans for OU 1-10, one for Group 1 sites and the other for Group 2 sites, which include the V-Tanks, PM-2A Tanks and Burn Pits. The OU 1-10 RD/RA work plan for Group 1 sites has been approved through the FFA/CO process by the Agency managers in accordance with the schedule in the RD/RA SOW. In 2001, the Agencies agreed that the Group 2 RD/RA work plan would only address the V-Tanks, and that the remaining sites would be addressed as the Group 3 sites. This change in grouping was addressed in the original Group 2 V-Tanks RD/RA work plan (DOE-ID 2002b).

The OU 1-10 RD/RA SOW also states that the enforceable milestone for submittal of a single OU 1-10 RA report would be determined and documented in the Group 2 RD/RA work plan; however, the original Group 2 V-Tanks RD/RA work plan also indicated that the enforceable milestone for the RA report would be addressed in the Group 3 RD/RA work plan. Because of the need for a new remedy for the V-Tanks, the subsequent planning for a new Group 2 V-Tanks RD/RA work plan, and a projected completion of the V-Tanks RA in FY 06 or FY 07, two RA reports will be prepared for OU 1-10. The first RA report will address the Group 1 and Group 3 sites as described in Section 6.4 of this document. The second RA report will address the Group 2 V-Tanks. The enforceable milestone for the OU 1-10 V-Tanks RA report will be provided in the new Group 2 V-Tanks RD/RA work plan. The V-Tanks will be the last OU 1-10 remediation site completed.

7.1 PM-2A Tanks

The selected remedy for the PM-2A Tanks, as documented in the OU 1-10 ROD (DOE-ID 1999) is soil excavation, tank content vacuum removal and disposal, tank decontamination, verification sampling, and excavation backfill and contouring. This remedy included leaving the tanks in place following decontamination of their interiors. As stated in Section 1.3 of this plan, minor deviations to the ROD-selected remedy were identified during development of this plan. Rather than decontaminating the tanks and leaving them in place, the Agencies have agreed that the tanks will be removed and disposed of at the ICDF. While this approach represents a deviation from the remedy described in the ROD, it is consistent with the intent of the ROD and leaves the PM-2A Tanks site in a state that is more protective of human health and the environment than its current configuration.

7.2 TSF-03 Burn Pit

The change to the remedy for TSF-03 is identified in the ESD (DOE-ID 2003a) to the OU 1-10 ROD. The selected remedy changed from installation of a native soil cover to the contingent remedy of excavation and disposal. The basis for the remedy change is that the original remedy of a soil cover with long-term monitoring was determined to be more costly than the contingent remedy of excavation and disposal. As described in the ESD, the cost for excavation and disposal ($0.5M) is estimated to be $1.6M less than a soil cover with long-term monitoring ($2.1M).

7.3 WRRTF-01 Burn Pits

The ESD also describes changes to the remedy for WRRTF-01 based on post-ROD sampling. Asbestos was identified as the contaminant of concern for Pits II and IV, rather than lead for Pits I, II, III and IV. Also, because lead is below risk-based levels and asbestos is not present in Pits I and III, they were designated as No Action sites, and the size of the native soil cover was reduced to cover Pits II and IV only, rather than Pits I, II and IV

8. FIVE-YEAR REVIEW

In accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan* (EPA 1990) for sites where contamination is left in place above health-based levels, a review will be conducted within five years from the initiation of construction activities at OU 1-10 to ensure that the remedy and institutional controls are still effective in protecting human health and the environment. Subsequent 5-year reviews will be completed within five years of the previous review. The reviews will be used to assess the need for future long-term environmental monitoring and administrative/institutional controls. Five-year reviews will be conducted for the remediated sites with institutional controls until 2099 (i.e., until the 100-year institutional control period expires) or until it is determined that the site no longer poses a risk to human health or the environment.

The WAG 1 IC plan (INEEL 2000) and the OU 1-10 O&M plan (DOE-ID 2001) identify the inspections required during the first five years after the RA. Inspection details and inspection checklists are provided in these plans. After the first 5-year review, the Agencies may revise the inspection frequency. Further requirements for conducting 5-year reviews will be addressed in a new INEEL site-wide 5-year review plan. This site-wide plan is expected to be submitted to the Agencies for review before or during the summer of 2004. The first 5-year review report will be submitted within five years of the start of remedial action. Remedial action for OU 1-10 was started on February 28, 2000 with the initiation of post-ROD sampling at WRRTF-13, Fuel Leak Site. Based on this start date, the first 5-year review report will be submitted by February 28, 2005.

9. REFERENCES

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Appendix A

Applicable or Relevant and Appropriate Requirements

Table A-1. Compliance with regulatory requirements for the PM-2A Tanks site.

Citation	Type	Regulatory Requirements	Implementation Strategy
IDAPA 58.01.01.161. Toxic Substances Air Discharges	Chemical-Specific	Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.	The release of carcinogenic and noncarcinogenic contaminants into the air will be modeled before start of construction, controlled, if necessary, and monitored during soil excavation, waste removal, treatment if performed, and tank removal. Air emissions will be modeled using an EPA approved air modeling program (SCREEN3). Air emissions limits were established using the model results. The results of this modeling are documented in the RD/RA work plan.
IDAPA 58.01.01.585 and 586 Air Discharges (Carcinogens and Noncarcinogens)	Chemical-Specific	Idaho Toxic Air Emissions For all sources constructed or modified since May 1, 1994, the net screening emissions levels (EL) and net acceptable ambient concentrations (AAC) for non-carcinogens which are not specifically controlled elsewhere in Idaho Administrative Procedures Act (IDAPA) regulation will comply with the table identified in IDAPA 58.01.01.585. For all sources constructed or modified since May 1, 1994, the net screening ELs and AAC for carcinogens which are not specifically controlled elsewhere in these rules are as provided in the table identified in IDAPA 58.01.01.586. IDAPA 16.01.01.585 and IDAPA 58.01.01.586.	
NESHAPS 40 CFR 61.92 and 61.93, and 61.94 Air Discharges (Radionuclide)	Chemical-Specific	NESHAPS 40 CFR 61.92 Emissions of radionuclides to the ambient air from DOE facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/year. Establishes standards and requirements for operations of the DOE and DOE contractors with respect to protection of members of the public and the environment against undue risk from radiation. Includes narrative and numerical standards (air and water) for management of radioactive liquid effluent and radiation protection of the public. In addition, the Order provides radiological protection requirements and guidelines for cleanup of residual radioactive material and management of the resulting wastes and residues, and release of property.	Emissions from the PM2A tanks will be modeled using calculations as allowed under the provisions of 40 CFR 61.93. The calculated emissions will be given to INEEL Environmental Affairs personnel for inclusion in the annual INEEL National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Report.
Air Discharges (Monitoring) 40 CFR 61.93 40 CFR 61.94 (a)	Chemical-Specific	40 CFR 61.93 Monitoring requirements. Continuously monitor radionuclide emissions per the requirements in 40 CFR 61.93 if the discharge of radionuclides without pollution control equipment could cause an effective dose equivalent in excess of .1 mrem/yr. If continuous emissions modeling is not required, periodically perform confirmatory measurements to verify the low emissions. 40 CFR 61.94 (a) Establishes compliance requirements	Monitoring is not required because the modeled emissions are well below the level that could cause an effective dose of 0.1mrem/yr To meet compliance requirements, the modeled emissions will be included in a site wide model to determine the effective dose equivalent for the nearest public receptor.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Fugitive Dust IDAPA 58.01.01.650 and .651	Action	All reasonable precautions will be taken to prevent the generation of fugitive dust. IDAPA 58.01.01.651 identifies examples of reasonable precautions for preventing fugitive dust.	During construction activities, all reasonable precautions will be taken to minimize fugitive dust through application of engineering controls. Potential options include: - Use of water sprays and dust suppressants - Halting construction activities during periods of high winds. - Covering stockpiles
Hazardous Waste Determination IDAPA 58.01.05.006 {40 CFR 262.11}	Action	A person who generates a solid waste must determine if the waste is a hazardous waste by using the following method: 1. Determine if the waste is excluded under (40 CFR 261.4) 2. Determine if the waste is listed as a hazardous waste in 40 CFR 261, Subpart D 3. For the purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator must then determine whether the waste is identified in subpart C (characteristic) of 40 CFR part 261.	Any waste streams generated during the remediation process for storage and/or disposal will have a hazardous waste determination performed. If needed, sampling will be conducted in accordance with a task- specific sampling and analysis plan. All generated waste will be packaged, handled, and stored in accordance with the WMP. Waste minimization activities will be implemented in accordance with the INEEL RRWAC. Trained personnel will inspect and ensure that the CERCLA Waste Storage Units are in compliance with all applicable regulations.
Manifest IDAPA 58.01.05.006 (40 CFR 262 Subpart B)	Action	Establishes requirements for transporting hazardous waste to treatment and/or disposal site. 262.20 General requirements (a) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2050-0039 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the instructions included in the appendix to part 262.	Manifests are not required for waste going to the ICDF, which is on the INEEL. If it is necessary to ship wastes off the INEEL, the waste disposition will require contact with INEEL WGS and packaging and transportation (P&T). All manifesting and transportation will be performed in compliance with applicable RCRA regulations, per WGS and P&T procedures.
Pre-Transportation Requirements IDAPA 58.01.05.006 (40 CFR 262.30-262.33)	Action	262.30 Packaging: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179. 262.31 Labeling: Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172. 262.32 Marking: (a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of	For shipment of waste to the ICDF, all packaging, labeling, marking, and placarding requirements will be met in accordance with the ICDF WAC, which incorporates these RCRA requirements. If it is necessary to ship wastes off the INEEL, the waste disposition will require contact with INEEL WGS and P&T. All pre-transportation requirements will be met per WGS and P&T procedures.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		Transportation regulations on hazardous materials under 49 CFR part 172; (b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304: HAZARDOUS WASTE -- Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency: Generator's Name and Address -- -- -- -- -- Manifest Document Number -- -- -- -- -- 262.33 Placarding: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F.	
General Waste Analysis IDAPA 58.01.05.008 (40 CFR 264.13)	Action	General facility standards require that operators of a facility must obtain chemical and physical analyses of a representative sample of each hazardous waste to be treated, stored, or disposed of at the facility prior to treatment, storage, or disposal. The analysis may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this part and part 268 of this chapter.	Waste stream management requirements are based on a waste evaluation supported by a project sampling and analysis plan and/or process knowledge. This information will provide the basis for determining: container requirements, storage requirements, labeling requirements, and treatment and disposal requirements. All waste (both radionuclide and VOC) generated during remediation operations will be managed through facility procedures in accordance with the WMP. Analysis requirements apply to soils excavated for disposal, waste removed from the tanks, the tanks themselves, and secondary waste generated during remediation.
Security of Site IDAPA 58.01.05.008 (40 CFR 264.14)	Action	A sign stating "Danger—Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The words must be written in English, and must be legible from a distance of at least 25 feet.	Measures must be taken to restrict access to the site during waste removal and treatment (if performed) and tank removal. These measures will be implemented by posting signs and by installation of temporary fences. Existing signs with information other than "Danger—Unauthorized Personnel Keep Out" may be used if the words on the sign indicate that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
General Inspections IDAPA 58.01.05.008 (40 CFR 264.15)	Action	(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to--(1) release of hazardous waste constituents to the environment or (2) a threat to human health. (b)(1) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards. (2) He must keep this schedule at the facility. (3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.). (4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. (c) The owner or operator must remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, RA must be taken immediately.	The remediation area will be inspected daily. The inspection checklist will be included in the Detailed Work Execution Plan. A logbook of inspections and corrective actions will be maintained during the project.
Personnel Training IDAPA 58.01.05.008 (40 CFR 264.16)	Action	(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d) (3) of this section. (c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.	All personnel involved in soil excavation, waste removal, tank removal, and site closure will be trained. Training requirements are listed in the HASP. Project-specific training might be required.
Preparedness and Prevention IDAPA 58.01.05.008 40 CFR 264 Subpart C	Action	264.30 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise. 264.31 Design and operation of facility	No treatment is planned; therefore, no facility will be built. Emergency equipment (e.g., fire extinguishers, communications systems) will be identified, tested, and maintained as described in the site HASP. The arrangements with local authorities also will be detailed.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Contingency Plan and Emergency Procedures IDAPA 58.01.05.008 (40 CFR 264 Subpart D)	Action	264.50 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise. 264.51 Purpose and implementation of contingency plan (a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. (b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. 264.52 Content of contingency plan (a) The contingency plan must describe the actions facility personnel must take to comply with §§264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility. (b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part. (c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37. (d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application. (e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	The substantive requirements of a contingency plan will be maintained in the site HASP. The HASP establishes an emergency response plan that documents the coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).	
Decontamination IDAPA 58.01.05.008 (40 CFR 264.114)	Action	Disposal or decontamination of equipment, structures and soils. During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in §§264.197, 264.228, 264.258, 264.280 or §264.310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of part 262 of this chapter.	Equipment decontamination will be conducted in accordance with the project Decontamination Plan.
Use and Management of Containers IDAPA 58.01.05.008 40 CFR 264.171-177	Action	1) Remediation wastes will be kept in containers meeting the requirements of 40 CFR 264.171; 2) Wastes will be stored with compatible containers; 3) Containers will be properly managed; and 4) The storage facility will be subject to inspections under 40 CFR 264.174. 5) The storage area containment system will be in accordance with 40 CFR 264.175. IDAPA 58.01.05.008 {40 CFR 264 Subpart I}	Applicable to any RCRA hazardous soils, waste, and secondary waste generated during remediation, which is managed in containers. All onsite containers will be selected to ensure that waste is compatible with the container and that container integrity is maintained. ICDF-approved containers are planned to be used. Weekly inspections will be conducted. Secondary containment for all containers with free liquids will be used. Characterization results via process knowledge or analytical results will dictate the packaging requirements, and determine storage requirements and compatibility with other wastes. Waste containers will be properly labeled and managed in accordance with existing operating procedures. All containerized waste will be subject to RCRA storage facility inspection requirements. If required, the storage containers will be stored within the CERCLA Waste Storage Area. These requirements will be covered and implemented through the WMP.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Tank Closure and Post Closure Care IDAPA 58.01.05.008 40 CFR 264.197(a)	Action	Closure and post-closure care (a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless §261.3(d) of this chapter applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in subparts G and H of this part.	All waste, the tanks and associated waste lines, and contaminated soils must be removed.
Miscellaneous Units (only if treatment is required to meet LDRs) IDAPA 58.01.05.008 40 CFR 264 Subpart X (except 264.603)	Action	264.600 Applicability The requirements in this subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as §264.1 provide otherwise.	Requirements are for an onsite treatment system for the tank waste. No treatment is planned.
Staging Piles IDAPA 58.01.05.008 (40 CFR 264.554)	Action	This section is written in a special format to make it easier to understand the regulatory requirements. Like other Environmental Protection Agency (EPA) regulations, this establishes enforceable legal requirements. For this ``I'' and ``you'' refer to the owner/operator. (a) What is a staging pile? A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in Sec. 260.10 of this chapter) that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by the Director according to the requirements in this section. (b) When may I use a staging pile? You may use a staging pile to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if you follow the standards and design criteria the Director has designated for that staging pile. The Director must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with Sec. 270.72(a)(5) and (b)(5) of this chapter). The Director must establish conditions in the permit, closure plan, or order that comply with paragraphs (d) through (k) of this section. ..... (d) What performance criteria must a staging pile satisfy? The Director must establish the standards and design criteria for the staging pile in the permit, closure plan, or order. (1) The standards and design criteria must comply with the following: (i) The staging pile must facilitate a reliable, effective and protective remedy;	Applicable to any RCRA hazardous soils and waste that are to be staged in piles during remediation.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		(ii) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate); and (iii) The staging pile must not operate for more than two years, except when the Director grants an operating term extension under paragraph (i) of this section (entitled ``May I receive an operating extension for a staging pile?''). You must measure the two-year limit, or other operating term specified by the Director in the permit, closure plan, or order, from the first time you place remediation waste into a staging pile. You must maintain a record of the date when you first placed remediation waste into the staging pile for the life of the permit, closure plan, or order, or for three years, whichever is longer. ..... (g) Are staging piles subject to Land Disposal Restrictions (LDR) and Minimum Technological Requirements (MTR)? No. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o). ..... (m) Is information about the staging pile available to the public? The Director must document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.	

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
LDR Treatment Standards IDAPA 58.01.05.008 IDAPA 58.01.05.011 40 CFR 268.40 (a)(b)(e)	Action	IDAPA Regulation 58.01.05.011 identifies that all of 40 CFR Part 268 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 1994, except for 40 CFR Parts 268.5, 268.6, 268.42(b) and 268.44. Except as specifically provided otherwise in this part or part 261 of this chapter, the requirements of this part apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities. Restricted wastes may continue to be land disposed as follows: 1) Where persons have been granted an extension to the effective date of a prohibition under subpart C of this part or pursuant to Section 268.5, with respect to those wastes covered by the extension; 2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 268.6, with respect to those wastes and units covered by the petition; 3) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this part, are not prohibited from land disposal if the wastes: a) Are disposed into a nonhazardous or hazardous injection well as defined in 40 CFR 144.6(a); and b) Do not exhibit any prohibited characteristic of hazardous waste at the point of injection; and c) If at the point of generation the injected wastes include D001 High TOC subcategory wastes or D012-D017 pesticide wastes that are prohibited under Section 148.17(c) of this chapter, those wastes have been treated to meet the treatment standards of Section 268.40 before injection.	Wastes generated as a result of remediation efforts will be characterized for determining management requirements. Additionally, each waste stream will be evaluated to determine the applicability of LDRs. Waste streams subject to LDRs will be segregated and consolidated with compatible waste streams, as appropriate, when similar treatment technologies can be utilized. Waste streams generated from implementation of treatment technologies will be captured and appropriately managed based on classification.
Treatment Standards for Hazardous Debris IDAPA 58.01.05.011 (40 CFR 268.45 (a)(b)(c)(d)	Action	§268.45 Treatment standards for hazardous debris (a) Treatment standards. Hazardous debris must be treated prior to land disposal as follows unless EPA determines under§261.3(f)(2) of this chapter that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subpart for the waste contaminating the debris: (1) General. Hazardous debris must be treated for each "contaminant subject to treatment" defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section. (2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section. (3) Mixtures of debris types. The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture	These alternative treatment standards will be considered for all debris items generated. Specifically, the tanks and associated piping will be evaluated for shipment to the ICDF for treatment as debris.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy

of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (b) of this section must be treated for each contaminant using one or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of this section, whichever are more stringent.

(b) Contaminants subject to treatment. Hazardous debris must be treated for each "contaminant subject to treatment." The contaminants subject to treatment must be determined as follows:

(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by §261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under §268.40.

(3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under subpart C, part 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.

(d) Treatment residuals –

(1) General requirements. Except as provided by paragraphs (d)(2) and (d)(4) of this section:

(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by subpart D of this

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
		part for the waste contaminating the debris. (2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of subpart D of this part. (3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in "Treatment Standards for Hazardous Wastes" at §268.40. (4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D00: Ignitable Liquids. (5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.	
Universal Treatment Standards IDAPA 58.01.05.011 40 CFR 268.48(a)	Action	§268.48 Universal treatment standards (a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in §268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.	A HWD will be performed for all waste generated using data collected during the RA. The HWD will identify all underlying hazardous constituents and associated universal treatment standards reasonably expected to be present. No onsite treatment is anticipated.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
Alternative Treatment Standards for Contaminated Soil IDAPA 58.01.05.011 40 CFR 268.49	Action	§268.49 Alternative LDR treatment standards for contaminated soil Applicability. You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:	No onsite treatment is anticipated.

If LDRs	And if LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil*	Apply to the listed waste now.	.....	Must comply with LDRs
Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now.	The soil is determined to contain the listed waste when the soil is first generated.	Must comply with LDRs
Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now.	The soil is determined not to contain the listed waste when the soil is first generated.	Needn't comply with LDRs
Didn't apply to the listed waste when it contaminated the soil*	Don't apply to the listed waste now.	.....	Needn't comply with LDRs

*For dates of LDR applicability, see 40 CFR Part 268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

Table A-1. (continued).

Citation	Type	Regulatory Requirements	Implementation Strategy
CERCLA Off-Site Policy 40 CFR 300.440	Action	§300.440 Procedures for planning and implementing off-site response actions (a) Applicability. (1) This section applies to any remedial or removal action involving the off-site transfer of any hazardous substance, pollutant, or contaminant as defined under CERCLA sections 101 (14) and (33) ("CERCLA waste") that is conducted by EPA, States, private parties, or other Federal agencies, that is Fund-financed and/or is taken pursuant to any CERCLA authority, including cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (except for cleanup of petroleum exempt under CERCLA). Applicability extends to those actions taken jointly under CERCLA and another authority.	Non-INEEL facilities that may be used for the treatment, storage, and disposal of this waste must be found suitable to receive waste from CERCLA remediation sites by that facility's applicable EPA Regional Office.
To Be Considered			
Radiation Protection of the Public and the Environment DOE Order 5400.5, Chapter II (1)(a)(b)		Order that limits the effective dose to the public from exposure to radiation sources and airborne releases.	Requirements are defined by compliance with the INEEL Radiological Control Manual. These requirements will be met by administrative and engineering controls during tank and contents removal, treatment, and disposal.
Institutional Controls Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities.		Applies to contamination left in place or remaining above E-4 risk.	Existing ICs will continue following the early RA. The IC requirements are specified in the *Institutional Control Plan for the Test Area North Waste Area Group 1* (INEEL 2000). This plan documents current and future activities for implementing ICs in accordance with the OU 1-10 ROD, and was designed to meet the Region 10 final policy.
Tank Systems	Action	This does not apply to the remediation because no tank systems are planned to be used.	No treatment is planned.

Table A-2. Compliance with regulatory requirements for TSF-03 and WRRTF-01.

Citation	Type/site	Regulatory Requirements	Implementation Strategy
IDAPA 58.01.01.161. Toxic Substances Air Discharges	Chemical-Specific TSF-03, WRRTF-01	Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.	The release of carcinogenic and noncarcinogenic contaminants into the air will be modeled before start of construction, controlled, if necessary, and monitored during soil excavation, waste removal, and treatment, if performed.
IDAPA 58.01.01.585 and 586 Air Discharges (Carcinogens and Noncarcinogens)	Chemical-Specific TSF-03, WRRTF-01	Idaho Toxic Air Emissions For all sources constructed or modified since May 1, 1994, the net screening emissions levels (EL) and net acceptable ambient concentrations (AAC) for non-carcinogens which are not specifically controlled elsewhere in Idaho Administrative Procedures Act (IDAPA) regulation will comply with the table identified in IDAPA 58.01.01.585. For all sources constructed or modified since May 1, 1994, the net screening ELs and AAC for carcinogens which are not specifically controlled elsewhere in these rules are as provided in the table identified in IDAPA 58.01.01.586. IDAPA 16.01.01.585 and IDAPA 58.01.01.586.	Air emissions will be modeled using an EPA approved air modeling program (SCREEN3). Air emissions limits were established using the model results. The results of this modeling are documented in the RD/RA work plan.
NESHAPS 40 CFR 61, Subpart M National Emission Standard for Asbestos	Chemical-Specific WRRTF-01	40 CFR 61.151 (a) (3) Each owner or operator of any inactive waste disposal site that was operated by sources covered under 40 CFR 61.142, 61.144, or 61.147 and received deposits of asbestos-containing waste material generated by the sources shall cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste. The facility must also provide notification and a record of location to any potential purchaser of the property that asbestos-containing waste material is disposed there and the site is subject to asbestos regulations, as required by 40 CFR 61.151 (e).	The design will incorporate a soil cover over Pits II and IV to prevent exposure to the material in the waste pits. Monuments will be established at the pit boundaries to provide identification of buried asbestos-containing waste material.
Fugitive Dust IDAPA 58.01.01.650 and .651	Action TSF-03, WRRTF-01	All reasonable precautions will be taken to prevent the generation of fugitive dust. IDAPA 58.01.01.651 identifies examples of reasonable precautions for preventing fugitive dust.	During construction activities, all reasonable precautions will be taken to minimize fugitive dust through application of engineering controls. Potential options include: - Use of water sprays and dust suppressants - Halting construction activities during periods of high winds. - Covering stockpiles

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
Landfills	Action	Applies only if waste is non-hazardous and is left in place and covered.	Additional analysis indicates the waste in the pits is not RCRA hazardous; therefore, the pits will be closed and maintained in accordance with the Idaho solid waste landfill regulations. These requirements were used in designing the soil cover.
IDAPA 58.01.06.006.02(a), 03(b), .04, .05, and .06(b)	WRRTF-01	02. Location. All landfills shall be located and operated such that solid waste is not dumped directly into ground or surface waters, and adequate protection shall be provided to prevent the pollution of ground and surface waters. (12- 25- 92) a. Surface drainage waters shall be diverted from the landfill. (12- 25- 92) 03(b) Depth Of Cover. A final layer of cover material, compacted to a minimum uniform depth of two (2) feet shall be placed over the entire surface of each portion of the final lift. Final cover shall be completed within one (1) week after the placement of solid waste in the final lift. (12- 25- 92) 04. Grading. The entire site, including the landfill surfaces, shall be graded and provided with drainage facilities to minimize runoff onto and into the sanitary landfill to prevent erosion or washing and to prevent the collection of standing water. The grading of the final surface of the fill area must provide a slope of not less than one percent (1%), but not exceeding fifteen percent (15%), except as approved by the Department or as required in Section 39-7415(3), Idaho Code. (12- 25- 92) 05. Seeding. Seeding to promote stabilization of the final soil cover shall be done as soon as weather permits seed bed preparation and planting operations and when seasonal conditions are suitable for the type of vegetation to be used. Re- seeding is mandatory until adequate vegetative cover is established to prevent erosion. (6- 28- 73) 06. Site Closure. An inspection of the entire site of the completed sanitary landfill, or other solid waste management site that is to be vacated, shall be made by a representative of the District before earth moving equipment or other equipment vital to disposal of solid waste is removed from the site or used on other projects. Any necessary corrective work shall be performed before the operation is accepted as completed. (12- 25- 92) b. Arrangements shall be made for the repair of all cracked, eroded, and uneven areas in the final cover during the year following completion of fill operations. (6- 28- 73)	

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
Hazardous Waste Determination IDAPA 58.01.05.006 {40 CFR 262.11}	Action TSF-03, WRRTF-01	A person who generates a solid waste must determine if the waste is a hazardous waste by using the following method: 4. Determine if the waste is excluded under (40 CFR 261.4) 5. Determine if the waste is listed as a hazardous waste in 40 CFR 261, Subpart D 6. For the purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator must then determine whether the waste is identified in subpart C (characteristic) of 40 CFR part 261.	Any waste streams generated during the remediation process for storage and/or disposal will have a hazardous waste determination performed. If needed, sampling will be conducted in accordance with a task- specific sampling and analysis plan. All generated waste will be packaged, handled, and stored in accordance with the WMP. Waste minimization activities will be implemented in accordance with the INEEL RRWAC. Trained personnel will inspect and ensure that the CERCLA Waste Storage Units are in compliance with all applicable regulations.
Manifest IDAPA 58.01.05.006 (40 CFR 262 Subpart B)	Action TSF-03, WRRTF-01	Establishes requirements for transporting hazardous waste to treatment and/or disposal site. 262.20 General requirements (b) A generator who transports, or offers for transportation, hazardous waste for offsite treatment, storage, or disposal must prepare a Manifest OMB control number 2050-0039 on EPA form 8700-22, and, if necessary, EPA form 8700-22A, according to the instructions included in the appendix to part 262.	Manifests are not required for waste going to the ICDF, which is on the INEEL. If it is necessary to ship wastes off the INEEL, the waste disposition will require contact with INEEL WGS and packaging and transportation (P&T). All manifesting and transportation will be performed in compliance with applicable RCRA regulations, per WGS and P&T procedures.
Pre-Transportation Requirements IDAPA 58.01.05.006 (40 CFR 262.30-262.33)	Action TSF-03, WRRTF-01	262.33 Packaging: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179. 262.34 Labeling: Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172. 262.35 Marking: (a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172; (b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304: HAZARDOUS WASTE -- Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency:	For shipment of waste to the ICDF, all packaging, labeling, marking, and placarding requirements will be met in accordance with the ICDF WAC, which incorporates these RCRA requirements. If it is necessary to ship wastes off the INEEL, the waste disposition will require contact with INEEL WGS and P&T. All pre-transportation requirements will be met per WGS and P&T procedures

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
		Generator's Name and Address -- -- -- -- --	
		Manifest Document Number -- -- -- -- --	
		262.33 Placarding: Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F.	
General Waste Analysis IDAPA 58.01.05.008 (40 CFR 264.13)	Action TSF-03, WRRTF-01	General facility standards require that operators of a facility must obtain chemical and physical analyses of a representative sample of each hazardous waste to be treated, stored, or disposed of at the facility prior to treatment, storage, or disposal. The analysis may include existing published or documented data on the hazardous waste or on hazardous waste generated from a similar process. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this part and part 268 of this chapter.	Waste stream management requirements are based on a waste evaluation supported by a project sampling and analysis plan and/or process knowledge. This information will provide the basis for determining: container requirements, storage requirements, labeling requirements, and treatment and disposal requirements. All waste (radionuclide, VOC, and metals) generated during remediation operations will be managed through facility procedures in accordance with the WMP. Analysis requirements apply to soils excavated for disposal, and secondary waste generated during remediation.
Security of Site IDAPA 58.01.05.008 (40 CFR 264.14)	Action TSF-03, WRRTF-01	A sign stating "Danger—Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The words must be written in English, and must be legible from a distance of at least 25 feet.	Measures must be taken to restrict access to the site during waste removal and treatment (if performed). These measures will be implemented by posting signs and by installing temporary fences. Existing signs with information other than "Danger—Unauthorized Personnel Keep Out" may be used if the words on the sign indicate that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
General Inspections IDAPA 58.01.05.008 (40 CFR 264.15)	Action TSF-03, WRRTF-01	(a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing—or may lead to--(1) release of hazardous waste constituents to the environment or (2) a threat to human health. (b)(1) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards. (2) He must keep this schedule at the facility. (3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.). (4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. (c) The owner or operator must remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, RA must be taken immediately.	The remediation area will be inspected daily. The inspection checklist will be included in the Detailed Work Execution Plan. A logbook of inspections and corrective actions will be maintained during the project.
Personnel Training IDAPA 58.01.05.008 (40 CFR 264.16)	Action TSF-03, WRRTF-01	(a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this part. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d) (3) of this section. (c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.	All personnel involved in soil excavation and waste removal will be trained. Training requirements are listed in the HASP. Project-specific training might be required.
Preparedness and Prevention IDAPA 58.01.05.008 40 CFR 264 Subpart C	Action TSF-03, WRRTF-01	264.32 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise. 264.33 Design and operation of facility	No treatment is planned; therefore, no facility will be built. Emergency equipment (e.g., fire extinguishers, communications systems) will be identified, tested, and maintained as described in the site HASP. The arrangements with local authorities also will be detailed.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
Contingency Plan and Emergency Procedures IDAPA 58.01.05.008 (40 CFR 264 Subpart D)	Action TSF-03, WRRTF-01	264.52 Applicability: The regulations in this subpart apply to owners and operators of all hazardous waste facilities, except as §264.1 provides otherwise. 264.53 Purpose and implementation of contingency plan (a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. (b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. 264.52 Content of contingency plan (a) The contingency plan must describe the actions facility personnel must take to comply with §§264.51 and 264.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility. (b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with part 112 of this chapter, or part 1510 of chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part. (c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37. (d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see §264.55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Regional Administrator at the time of certification, rather than at the time of permit application. (e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.	The substantive requirements of a contingency plan will be maintained in the site HASP. The HASP establishes an emergency response plan that documents the coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
		(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).	
Groundwater Protection Standard IDAPA 58.01.05.008 40 CFR 264.92	Action WRRTF-01	"If the waste in the pits is determined to be hazardous through additional sampling and analysis groundwater protection standards and a monitoring program must be established.	Applies only to facilities which treat, store, or dispose of hazardous waste. Does not apply to TSF-03 because waste will be removed and disposed to the ICDF. Does not apply to WRRTF-01 because waste left in place is not hazardous.
Hazardous Constituents IDAPA 58.01.05.008 40 CFR 264.93	Action WRRTF-01	Specifies hazardous constituents in the waste for which the ground water quality standards will apply.	Does not apply to WRRTF-01 because waste left in place is not hazardous.
Concentration Limits IDAPA 58.01.05.008 40 CFR 264.94	Action WRRTF-01	Specifies the concentration limits which cannot be exceeded in groundwater due to releases from the disposal of hazardous waste.	Does not apply to WRRTF-01 because waste left in place is not hazardous.
Point of Compliance IDAPA 58.01.05.008 40 CFR 264.95	Action WRRTF-01	Specifies point of compliance where groundwater must be monitored.	Does not apply to WRRTF-01 because waste left in place is not hazardous.
Groundwater Monitoring Requirements IDAPA 58.01.05.0084 40 CFR 264.97	Action WRRTF-01	Lists specific requirements for groundwater monitoring wells	Does not apply to WRRTF-01 because waste left in place is not hazardous.
Detection Monitoring Program IDAPA 58.01.05.008 40 CFR 264.98 (a-f)	Action WRRTF-01	Lists specific requirements for ground water monitoring program.	Does not apply to WRRTF-01 because waste left in place is not hazardous.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
Decontamination IDAPA 58.01.05.008 (40 CFR 264.114)	Action WRRTF-01 TSF-03	Disposal or decontamination of equipment, structures and soils. During the partial and final closure periods, all contaminated equipment, structures and soils must be properly disposed of or decontaminated unless otherwise specified in §§264.197, 264.228, 264.258, 264.280 or §264.310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of part 262 of this chapter.	Equipment decontamination will be conducted in accordance with the project Decontamination Plan.
Use and Management of Containers IDAPA 58.01.05.008 40 CFR 264.171-177	Action WRRTF-01 TSF-03	1) Remediation wastes will be kept in containers meeting the requirements of 40 CFR 264.171; 2) Wastes will be stored with compatible containers; 3) Containers will be properly managed; and 4) The storage facility will be subject to inspections under 40 CFR 264.174. 5) The storage area containment system will be in accordance with 40 CFR 264.175. IDAPA 58.01.05.008 {40 CFR 264 Subpart I}	Applicable to any RCRA hazardous soils, waste, and secondary waste generated during remediation, which is managed in containers. All onsite containers will be selected to ensure waste is compatible with the container and container integrity is maintained. ICDF-approved containers are planned to be used. Weekly inspections will be conducted. Secondary containment for all containers with free liquids will be used. Characterization results via process knowledge or analytical results will dictate the packaging requirements, and determine storage requirements and compatibility with other wastes. Waste containers will be properly labeled and managed in accordance with existing operating procedures. All containerized waste will be subject to RCRA storage facility inspection requirements. If required, the storage containers will be stored within the CERCLA Waste Storage Area. These requirements will be covered and implemented through the WMP.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
Staging Piles IDAPA 58.01.05.008 (40 CFR 264.554)	Action TSF-03	This section is written in a special format to make it easier to understand the regulatory requirements. Like other Environmental Protection Agency (EPA) regulations, this establishes enforceable legal requirements. For this ``I'' and ``you'' refer to the owner/operator. (a) What is a staging pile? A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in Sec. 260.10 of this chapter) that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by the Director according to the requirements in this section. (b) When may I use a staging pile? You may use a staging pile to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if you follow the standards and design criteria the Director has designated for that staging pile. The Director must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with Sec. 270.72(a)(5) and (b)(5) of this chapter). The Director must establish conditions in the permit, closure plan, or order that comply with paragraphs (d) through (k) of this section. ..... (m) Is information about the staging pile available to the public? The Director must document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.	Applicable to any RCRA hazardous soils and waste from the pits that are to be staged in piles during remediation. NOTE: Based on the CY 2000/2001 site characterization data, TSF-03 soils are not hazardous.
Miscellaneous Units (only if treatment is required to meet LDRs) IDAPA 58.01.05.008 40 CFR 264 Subpart X (except 264.603)	Action TSF-03	264.601 Applicability The requirements in this subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as §264.1 provide otherwise.	No treatment is planned. NOTE: Based on the CY 2000/2001 site characterization data, TSF-03 soils are not hazardous.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
LDR Treatment Standards IDAPA 58.01.05.008 IDAPA 58.01.05.011 40 CFR 268.40 (a)(b)(e)	Action TSF-03	IDAPA Regulation 58.01.05.011 identifies that all of 40 CFR Part 268 and all Subparts are herein incorporated by reference as provided in 40 CFR, revised as of July 1, 1994, except for 40 CFR Parts 268.5, 268.6, 268.42(b) and 268.44. Except as specifically provided otherwise in this part or part 261 of this chapter, the requirements of this part apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities. Restricted wastes may continue to be land disposed as follows: 1) Where persons have been granted an extension to the effective date of a prohibition under subpart C of this part or pursuant to Section 268.5, with respect to those wastes covered by the extension; 2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 268.6, with respect to those wastes and units covered by the petition; 3) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this part, are not prohibited from land disposal if the wastes: a) Are disposed into a nonhazardous or hazardous injection well as defined in 40 CFR 144.6(a); and b) Do not exhibit any prohibited characteristic of hazardous waste at the point of injection; and c) If at the point of generation the injected wastes include D001 High TOC subcategory wastes or D012-D017 pesticide wastes that are prohibited under Section 148.17(c) of this chapter, those wastes have been treated to meet the treatment standards of Section 268.40 before injection.	Wastes generated as a result of remediation efforts will be characterized for determining management requirements. Additionally, each waste stream will be evaluated to determine the applicability of LDRs. Waste streams subject to LDRs will be segregated and consolidated with compatible waste streams, as appropriate, when similar treatment technologies can be utilized. Waste streams generated from implementation of treatment technologies will be captured and appropriately managed based on classification. NOTE: Based on the CY 2000/2001 site characterization data, TSF-03 soils are not hazardous. No treatment is planned.
Treatment Standards for Hazardous Debris IDAPA 58.01.05.011 (40 CFR 268.45 (a)(b)(c)(d)	Action TSF-03	§268.45 Treatment standards for hazardous debris (a) Treatment standards. Hazardous debris must be treated prior to land disposal as follows unless EPA determines under§261.3(f)(2) of this chapter that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subpart for the waste contaminating the debris: (6) General. Hazardous debris must be treated for each "contaminant subject to treatment" defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section. (7) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section. (8) Mixtures of debris types. The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture	These alternative treatment standards will be considered for all debris generated. Specifically, debris will be evaluated for shipment to the ICDF for treatment as debris. NOTE: Based on the CY 2000/2001 site characterization data, TSF-03 soils are not hazardous.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy

of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(9) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (b) of this section must be treated for each contaminant using one or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(10) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of this section, whichever are more stringent.

(b) Contaminants subject to treatment. Hazardous debris must be treated for each "contaminant subject to treatment." The contaminants subject to treatment must be determined as follows:

(4) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by §261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(5) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under §268.40.

(6) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under subpart C, part 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.

(d) Treatment residuals –

(6) General requirements. Except as provided by paragraphs (d)(2) and (d)(4) of this section:

(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by subpart D of this

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
		part for the waste contaminating the debris. (7) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of subpart D of this part. (8) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in "Treatment Standards for Hazardous Wastes" at §268.40. (9) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D00: Ignitable Liquids. (10) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.	
Universal Treatment Standards IDAPA 58.01.05.011 40 CFR 268.48(a)	Action TSF-03	§268.48 Universal treatment standards (b) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in §268.2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.	A HWD will be performed for all waste generated using data collected during the RA. The HWD will identify all underlying hazardous constituents and associated universal treatment standards reasonably expected to be present. No onsite treatment is anticipated. NOTE: Based on most recent data, TSF-03 soils are not hazardous.
Alternative Treatment Standards for Contaminated Soil IDAPA 58.01.05.011 40 CFR 268.49	Action TSF-03	§268.49 Alternative LDR treatment standards for contaminated soil Applicability. You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:	No onsite treatment is anticipated. NOTE: Based on most recent data, TSF-03 soils are not hazardous.

Table A-2. (continued).

Citation	Type/site	Regulatory Requirements	Implementation Strategy
CERCLA Off-Site Policy 40 CFR 300.440	Action TSF-03	§300.440 Procedures for planning and implementing off-site response actions (b) Applicability. (1) This section applies to any remedial or removal action involving the off-site transfer of any hazardous substance, pollutant, or contaminant as defined under CERCLA sections 101 (14) and (33) ("CERCLA waste") that is conducted by EPA, States, private parties, or other Federal agencies, that is Fund-financed and/or is taken pursuant to any CERCLA authority, including cleanups at Federal facilities under section 120 of CERCLA, and cleanups under section 311 of the Clean Water Act (except for cleanup of petroleum exempt under CERCLA). Applicability extends to those actions taken jointly under CERCLA and another authority.	Non-INEEL facilities that may be used for the treatment, storage, and disposal of this waste must be found suitable to receive waste from CERCLA remediation sites by that facility's applicable EPA Regional Office.
To Be Considered			
Institutional Controls Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities.	WRRTF-01, TSF-03	Applies to contamination left in place or remaining above E-4 risk.	Existing ICs will continue following the early RA. The IC requirements are specified in the *Institutional Control Plan for the Test Area North Waste Area Group 1* (INEEL 2000). This plan documents current and future activities for implementing ICs in accordance with the OU 1-10 ROD, and was designed to meet the Region 10 final policy.
Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities	WRRTF-01 TSF-03	Applies to lead in soil left in place	
Tank Systems	Action	This does not apply to the remediation because no tank systems are planned to be used.	No treatment is planned.